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Essentials of Diseases of the Skin

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QUESTIONS AND ANSWERS

PREPARED ESPECIALLY FOR

STUDENTS OF MEDICINE.

BY

HENRY W. STELWAGON, M.D., PH.D.,

ATTENDING PHYSICIAN TO THE PHILADELPHIA DISPENSARY FOR SKIN DISEASES; PHYSICIAN TO THE DEPARTMENT FOR SKIN DISEASES, HOWARD HOSPITAL; DERMATOLOGIST TO THE PHILADELPHIA HOSPITAL; LECTURER ON DERMATOLOGY IN THE WOMAN'S MEDICAL COLLEGE; PHYSICIAN TO THE SERVICE FOR SKIN DISEASES, NORTHERN DISPENSARY, ETC.

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PREFACE.

Much of the present volume is, in a measure, the outcome of a thorough revision, remodelling and simplification of the various articles contributed by the author to Pepper's System of Medicine, Buck's Reference Handbook of the Medical Sciences, and Keating's Cyclopædia of the Diseases of Children. Moreover, in the endeavor to present the subject as tersely and briefly as compatible with clear understanding, the several standard treatises on diseases of the skin by Tilbury Fox, Duhring, Hyde, Robinson, Anderson, and Crocker, have been freely consulted. The space allotted to each disease has been based upon relative importance. As to treatment, the best and approved methods only, those which are founded upon the aggregate experience of dermatologists, are referred to.

For the benefit of those whose clinical opportunities are somewhat limited, an appendix containing references to colored plates of the several American Atlases of Skin Diseases, by Duhring, G. H. Fox, Taylor, and Morrow is added. For general information a statistical table from the Transactions of the American Dermatological Association is also appended.

H. W. S.

Philadelphia, March, 1890.

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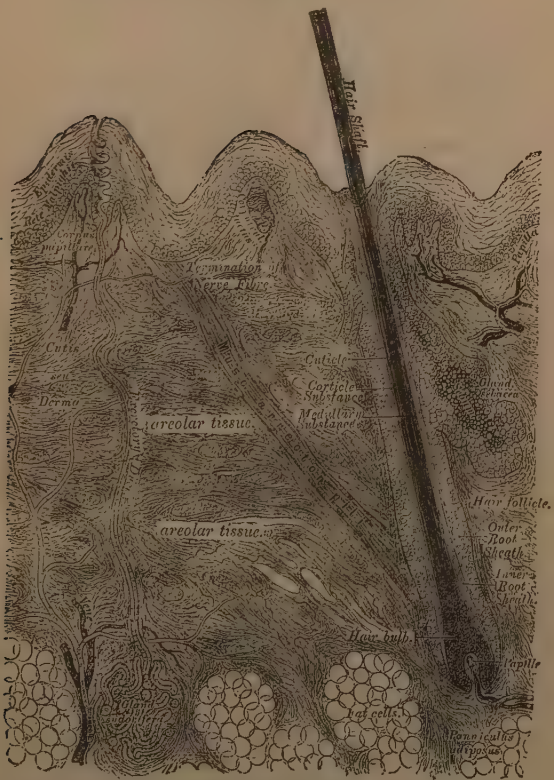
DISEASES OF THE SKIN.

ANATOMY OF THE SKIN.

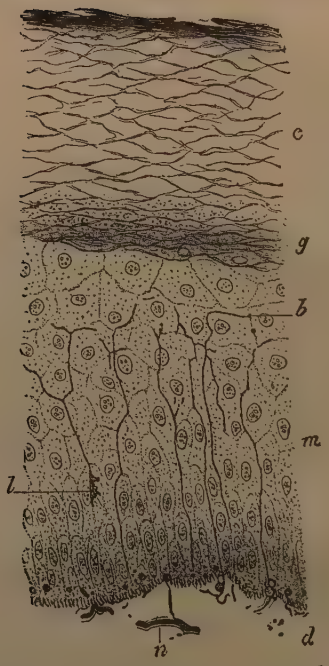
FIG. 1.



Vertical section of the skin—Diagrammatic. (*After Heitzmann.*)

The Epidermis.

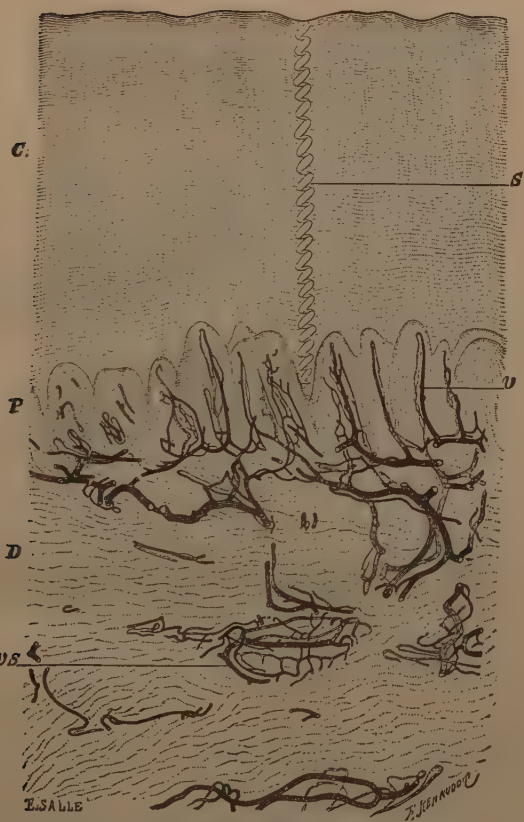
FIG. 2.



c, corneous (horny) layer; *g*, granular layer; *m*, mucous layer (rete Malpighii). The stratum lucidum is the layer just above the granular layer.
Nerve terminations—*n*, afferent nerve; *b*, terminal nerve bulbs; *l*, cell of Langerhaus.
(*After Ranvier.*)

The Bloodvessels.

FIG. 3.



C, epidermis; *D*, corium; *P*, papillæ; *S*, sweat-gland duct.

v, arterial and venous capillaries (superficial, or papillary plexus) of the papillæ. Deep plexus is partly shown at lower margin of the diagram; *vs*—an intermediate plexus, an outgrowth from the deep plexus, supplying sweat-glands, and giving a loop to hair papilla. (*After Ranvier.*)

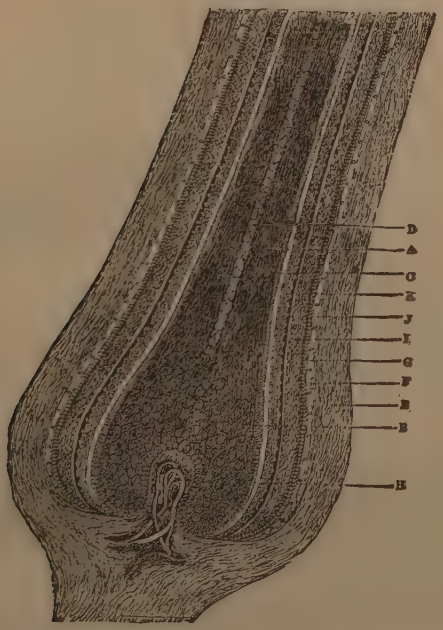
The Nervous and Vascular Papillæ.

FIG. 4.

a, a vascular papilla; *b*, a nervous papilla; *c*, a blood-vessel; *d*, a nerve fibre; *e*, a tactile corpuscle. (*After Biesiadecki.*)

The Hair and Hair-Follicle.

FIG. 5.



A, shaft of the hair; *B*, root of the hair; *C*, cuticle of the hair; *D*, medullary substance of the hair.

E, external layer of the hair-follicle; *F*, middle layer of the hair-follicle; *G*, internal layer of the hair-follicle; *H*, papilla of the hair; *I*, external root-sheath; *J*, outer layer of the internal root-sheath; *K*, internal layer of the internal root-sheath. (*After Duhring.*)

SYMPTOMATOLOGY.

The symptoms of cutaneous disease may be objective, subjective or both; and in some diseases, also, there may be systemic disturbance.

What do you mean by objective symptoms?

Those symptoms visible to the eye or touch.

What do you understand by subjective symptoms?

Those which relate to sensation, such as itching, tingling, burning, pain, tenderness and heat.

What do you mean by systemic symptoms?

Those general symptoms, slight or profound, which are sometimes associated, primarily or secondarily, with the cutaneous disease, as, for example, the systemic disturbance in leprosy, pemphigus, and purpura hemorrhagica.

Into what two classes of lesions are the objective symptoms commonly divided?

Primary (or elementary), and
Secondary (or consecutive).

Primary Lesions.

What are primary lesions?

Those objective lesions with which cutaneous diseases begin. They may continue as such or may undergo modification, passing into the secondary or consecutive lesions.

Enumerate the primary lesions.

Macules, papules, tubercles, wheals, tumors, vesicles, blebs and pustules.

What are macules (maculæ)?

Variously-sized, shaped and tinted spots and discolorations, without elevation or depression; as, for example, freckles, spots of purpura, macules of cutaneous syphilis.

What are papules (papulæ)?

Small, circumscribed, solid elevations, rarely exceeding the size of a split-pea, and usually superficially seated; as, for example, the papules of eczema, of acne, and of cutaneous syphilis.

What are tubercles (tubercula)?

Circumscribed, solid elevations, commonly pea-sized and usually deep-seated; as, for example, the tubercles of syphilis, of leprosy, and of lupus.

What are wheals (pomphi)?

Variously-sized and shaped, whitish, pinkish or reddish elevations, of an evanescent character; as, for example, the lesions of urticaria, the lesions produced by the bite of a mosquito or by the sting of a nettle.

What are tumors (tumores)?

Soft or firm elevations, usually large and prominent, and having their seat in the corium and subcutaneous tissue; as, for example, sebaceous tumors, gummata, and the lesions of fibroma.

What are vesicles (vesiculæ)?

Pin-head to pea-sized, circumscribed epidermal elevations, containing serous fluid; as, for example, the so-called fever-blisters, the lesions of herpes zoster, and of vesicular eczema.

What are blebs (bullæ)?

Rounded or irregularly-shaped, pea to egg-sized epidermic elevations, containing serous fluid; in short, they are essentially the same as vesicles, except as to size; as, for example, the blebs of pemphigus, and of rhus poisoning.

What are pustules (pustulæ)?

Circumscribed epidermic elevations containing pus; as, for example, the pustules of acne, of impetigo, and of sycosis.

Secondary Lesions.

What are secondary lesions?

Those lesions resulting from accidental or natural change, modification or termination of the primary lesions.

Enumerate the secondary lesions.

Scales, crusts, excoriations, fissures, ulcers, scars and stains.

What are scales (squamæ)?

Dry, laminated, epidermal exfoliations; as, for example, the scales of psoriasis, ichthyosis, and eczema.

What are crusts (crustæ)?

Dried effete masses of exudation; as, for example, the crusts of impetigo, of eczema, and of the pustular and ulcerating syphilodermata.

What are excoriations (excoriationes)?

Superficial, usually epidermal, linear or punctate loss of tissue; as, for example, ordinary scratch-marks.

What are fissures (rhagades)?

Linear cracks or wounds, involving the epidermis, or epidermis and corium; as, for example, the cracks which often occur in eczema when seated about the joints, the cracks of chapped lips and hands.

What are ulcers (ulcera)?

Rounded or irregularly-shaped and sized loss of skin and subcutaneous tissue resulting from disease; as, for example, the ulcers of syphilis and of cancer.

What are scars (cicatrices)?

Connective-tissue new formations replacing loss of substance.

What are stains?

Discolorations left by cutaneous disease, and which may be transitory or permanent.

Distribution and Configuration.

What do you mean by a patch of eruption?

A single group of lesions or an area of disease.

When is an eruption said to be limited or localized?

When it is confined to a certain region.

When is an eruption said to be general or generalized?

When it is scattered, uniformly or irregularly, over the entire surface.

When is an eruption universal?

When the whole integument is involved, without any intervening healthy skin.

When is an eruption said to be discrete?

When the lesions constituting the eruption are isolated, having more or less intervening normal skin.

When is an eruption confluent?

When the lesions constituting the eruption are so closely crowded that a solid sheet results.

When is an eruption uniform?

When the lesions constituting the eruption are all of one type or character.

When is an eruption multiform?

When the lesions constituting the eruption are of two or more types or characters.

When are lesions said to be aggregated?

When they tend to form groups or closely-crowded patches.

When are lesions disseminated?

When they are irregularly scattered, with no tendency to form groups or patches.

When is a patch of eruption said to be circinate?

When it presents a rounded form, and usually tending to clear in the centre; as, for example, a patch of ringworm.

When is a patch of eruption said to be annular?

When it is ring-shaped, the central portion being clear; as, for example, in erythema annulare.

What meaning is conveyed by the term "iris"?

The patch of eruption is made up of several concentric rings. Difference of duration of the individual rings, usually slight, tends to give the patch variegated coloration; as, for example, in erythema iris and herpes iris.

What meaning is conveyed by the term "marginate"?

The sheet of eruption is sharply defined against the healthy skin; as, for example, in erythema marginatum, eczema marginatum.

What meaning is conveyed by the qualifying term "circumscribed"?

The term is applied to small, usually more or less rounded, patches, when sharply defined; as, for example, the typical patches of psoriasis.

When is the qualifying term "gyrate" employed?

When the patches arrange themselves in an irregular winding or festoon-like manner; as, for instance, in some cases of psoriasis. It results, usually, from the coalescence of several rings, the eruption disappearing at the points of contact.

When is an eruption said to be serpiginous?

When the eruption spreads at the border, clearing up at the older part; as, for instance, in the serpiginous syphiloderm.

RELATIVE FREQUENCY.

Name the more common cutaneous diseases and state their frequency.

Eczema, 30.4%; syphilis cutanea, 11.2%; acne, 7.3%; pediculosis, 4%; psoriasis, 3.3%; ringworm, 3.2%; dermatitis, 2.6%; scabies, 2.6%; urticaria, 2.5%; pruritus, 2.1%; seborrhœa, 2.1%; herpes simplex, 1.7%; favus, 1.7%; impetigo, 1.4%; herpes zoster, 1.2%; verruca, 1.1%; tinea versicolor, 1%. Total: eighteen diseases, representing 81 per cent. of all cases met with.

(These percentages are based upon statistics, public and private, of the American Dermatological Association, covering a period of ten years. In private practice the proportion of cases of pediculosis, scabies, favus and impetigo, are almost *nil*, whilst acne, acne rosacea, seborrhœa, epithelioma and lupus, are relatively more frequent.)

CONTAGIOUSNESS.

Name the contagious skin diseases.

Impetigo contagiosa, ringworm, favus, scabies and pediculosis; excluding the exanthemata, erysipelas, syphilis and certain rare and doubtful diseases.

RAPIDITY OF CURE.

Is the rapid cure of a skin disease fraught with any danger to the patient?

No. It was formerly so considered, especially by the public and general profession, and the impression still holds to some extent, but it is not in accord with dermatological experience.

OINTMENT BASES.

Name the several fats in common use for ointment bases.

Lard, petrolatum (or cosmoline or vaseline), cold cream and lanolin.

State the relative advantages of these several bases.

Lard is the best all-around base, possessing penetrating properties scarcely exceeded by any other fat.

Petrolatum is also valuable, having little, if any, tendency to change; it is useful as a protective, but is lacking in its power of penetration.

Cold Cream (ungt. aquæ rosæ) is soothing and cooling, and may often be used when other fatty applications disagree.

Lanolin is said to surpass in its power of penetration all other bases, but this is questionable; unless thoroughly good and fresh it often has a disagreeable, sheepy odor and irritating properties.

These several bases may, and often with advantage, be variously combined.

What is to be added to these several bases if a stiffer ointment is required?

Simple cerate, wax, spermaceti, or suet; or in some instances, a pulverulent substance, such as starch and zinc oxide.

CLASSIFICATION.

Upon what basis are diseases of the skin commonly classified?

Mainly upon pathological and anatomical grounds. A permanent classification is, in the present state of knowledge, impossible.

(The classification here given is that adopted by the American Dermatological Association.)

Name the classes into which diseases of the skin are commonly divided.

There are eight classes:—

CLASS I. DISORDERS OF THE GLANDS.

1. *Of the Sweat Glands.*

Hyperidrosis.	Bromidrosis.
Sudamen.	Chromidrosis.
Anidrosis.	Uridrosis.

2. *Of the Sebaceous Glands.*

Seborrhœa:	Cyst:
a. oleosa.	*a.* Milium.
b. sicca.	*b.* Steatoma.
Comedo.	Asteatosis.

CLASS II. INFLAMMATIONS.

Exanthemata.	*Dermatitis:
Erythema simplex.	*a.* traumatica.
Erythema multiforme:	*b.* venenata.
a. papulosum.	*c.* calorica.
b. bullosum.	*d.* medicamentosa.
c. nodosum.	*e.* gangrænosa.
Urticaria.	Erysipelas.
pigmentosa.	Furunculus.

*Indicating affections of this class not properly included under other titles.

CLASS II. INFLAMMATIONS—*Continued.*

Anthrax.
Phlegmona diffusa,
Pustula maligna.
Herpes simplex.
Herpes zoster.
Dermatitis herpetiformis.
Psoriasis.
Pityriasis maculata et circinata.
Dermatitis exfoliativa.
Pityriasis rubra.
Lichen :
a. planus.
b. ruber.
Eczema :
a. erythematosum.
b. papulosum.
c. vesiculosum.
d. madidans.
e. pustulosum.
f. rubrum.
g. squamosum.
Prurigo.
Acne.
Acne rosacea.
Sycosis.
Impetigo.
Impetigo contagiosa.
Impetigo herpetiformis.
Ecthyma.
Pemphigus.

CLASS III. HEMORRHAGES.

Purpura.
a. simplex.
b. hæmorrhagica.

CLASS IV. HYPERTROPHIES.

1. *Of Pigment.*

Lentigo.
Chloasma.

2. *Of Epidermal and Papillary Layers.*

Keratosis.
a. pilaris.
b. senilis.
Molluscum epitheliale.
Callositas.
Clavus.
Cornu cutaneum.
Verruca
Verruca necrogenica.
Nævus pigmentosus.
Xerosis.
Ichthyosis.
Onychauxis.
Hypertrichosis.

3. *Of Connective Tissue.*

Sclerema neonatorum.
Scleroderma.
Morphœa.
Elephantiasis.
Rosacea :
a. erythematosa.
b. hypertrophica.
Frambœsia.

CLASS V. ATROPHIES.

1. *Of Pigment.*
   - Leucoderma.
   - Albinismus.
   - Vitiligo.
   - Canities.
2. *Of Hair.*
   - Alopecia.
   - Alopecia furfuracea.
   - Alopecia areata.
   - Atrophia pilorum propria.
   - Trichorexis nodosa.
3. *Of Nail.*
   - Atrophia unguis.
4. *Of Cutis.*
   - Atrophia senilis.
   - Atrophia maculosa et striata.

CLASS VI. NEW GROWTHS.

1. *Of Connective Tissue.*
   - Keloid.
   - Cicatrix.
   - Fibroma.
   - Neuroma.
   - Xanthoma.
2. *Of Muscular Tissue.*
   - Myoma.
3. *Of Vessels.*
   - Angioma.
   - Angioma pigmentosum et atrophicum.
   - Angioma cavernosum.
   - Lymphangioma.
4.
   - Rhinoscleroma.
   - Lupus erythematosus.
   - Lupus vulgaris.
   - Scrofuloderma.
   - Syphiloderma.
     - *a.* erythematosum.
     - *b.* papulosum.
     - *c.* pustulosum.
     - *d.* tuberculosum.
     - *e.* gummatosum.
   - Lepra :
     - *a.* tuberosa.
     - *b.* maculosa.
     - *c.* anæsthetica.
   - Carcinoma.
   - Sarcoma.

CLASS VII. NEUROSES.

- Hyperæsthesia :
  - *a.* Pruritus.
  - *b.* Dermatalgia.
- Anæsthesia.

CLASS VIII. PARASITIC AFFECTIONS.

1. *Vegetable.*

Tinea favosa.
Tinea trichophytina :
a. circinata.
b. tonsurans.
c. sycosis.
Tinea versicolor.

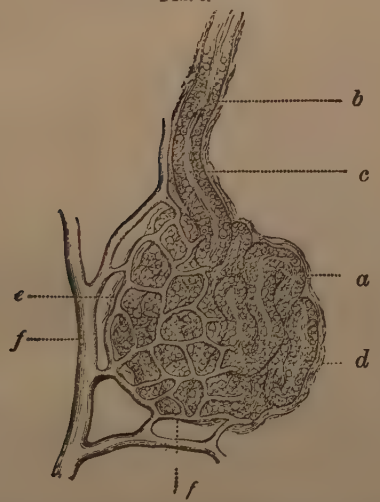
2. *Animal.*

Scabies.
Pediculosis capillitii.
Pediculosis corporis.
Pediculosis pubis.

CLASS I.—DISORDERS OF THE GLANDS.

Hyperidrosis.

FIG. 6.



A normal sweat-gland, highly magnified. (*After Neumann.*)

a, Sweat-coil, with secreting epithelial cells; *b*, sweat-duct; *c*, lumen of duct; *d*, connective tissue capsule; *e* and *f*, arterial trunk and capillaries supplying the gland.

What is hyperidrosis?

Hyperidrosis is a functional disturbance of the sweat-glands, char-

acterized by an increased production of sweat. This increase may be slight or excessive, local or general.

As a local affection, what parts are most commonly involved?

The hands, feet, especially the palmar and plantar surfaces, the axillæ and the genitalia.

Describe the symptoms of the local forms of hyperidrosis.

The essential, and frequently the sole symptom, is more or less profuse sweating.

If the hands are the parts involved, they are noted to be wet, clammy and sometimes cold.

If involving the soles, the skin often becomes more or less macerated and sodden in appearance, and as a result of this maceration and continued irritation they may become inflamed, especially about the borders of the affected parts. The sweat undergoes change and becomes offensive.

Is hyperidrosis acute or chronic?

Usually chronic, although it may also occur as an acute affection.

What is the etiology of hyperidrosis?

Debility is commonly the cause in general hyperidrosis; the local forms are probably neurotic in origin.

What is the prognosis?

The disease is usually persistent and often rebellious to treatment; in many instances a permanent cure is possible, in others palliation. Relapses are not uncommon.

What constitutional remedies are employed in the treatment of hyperidrosis?

Ergot, belladonna, gallic acid, mineral acids, and tonics. Constitutional treatment is rarely of benefit in the local forms of hyperidrosis, and external applications are seldom of service in general hyperidrosis.

What external remedies are employed in the treatment of the local forms of hyperidrosis?

Astringent lotions of zinc sulphate, tannin and alum, applied several times daily, with or without the supplementary use of dusting-powders.

Dusting-powders of starch and boric acid, to which may be added twenty to forty grains of salicylic acid to the ounce, to be used freely and often :—

℞. Pulv. ac. salicylici, ... gr. xx–xl
Pulv. ac. borici, ... ʒ ij
Pulv. amyli, ... ʒ vj. M.

Diachylon ointment, and an ointment containing a drachm of tannin to the ounce; more especially applicable in hyperidrosis of the feet. The parts are first thoroughly washed, rubbed dry with towels and dusting-powder, and the ointment applied on strips of muslin or lint and bound on; the dressing is renewed twice daily, the parts each time being rubbed dry with soft towels and dusting-powder, and the treatment continued for ten days to two weeks, after which the dusting-powder is to be used alone for several weeks. No water is to be used after the first washing until the ointment is discontinued. One such course will ordinarily suffice, but not infrequently a repetition is necessary.

Sudamen.

(*Synonym:* Miliaria crystallina.)

What is sudamen?

Sudamen is a non-inflammatory disorder of the sweat-glands, characterized by pin-point to pin-head-sized, isolated, superficial, translucent whitish vesicles.

Describe the clinical characters.

The lesions develop rapidly and in great numbers, either irregularly or in crops, and are usually to be seen as discrete, closely-crowded, whitish, or pearl-colored minute elevations, occurring most abundantly upon the trunk. In appearance they resemble minute dew-drops. They are non-inflammatory, without areola, never become purulent, and evince no tendency to rupture, the fluid disappearing by absorption, and the epidermal covering by subsequent desquamation.

Give the course and duration of sudamen.

New crops may appear as the older lesions are disappearing, and the affection persist for some time, or, on the other hand, the whole process may come to an end in several days or a week. In short, the course and duration depend upon the subsidence or persistence of the cause.

What is the anatomical seat of sudamen?

The vesicles are due to collection of sweat in some part of the sweat-gland duct or epidermis.

What is the cause of sudamen?

Debility, especially when associated with high fever. The eruption is often seen in the course of typhus, typhoid and rheumatic fevers.

How would you treat sudamen?

By constitutional remedies directed against the predisposing factor or factors, and the application of cooling lotions of vinegar or alcohol and water, or dusting-powders of starch and lycopodium.

Anidrosis.

Describe anidrosis.

It is the opposite condition of hyperidrosis, and is characterized by diminution or suppression of the sweat secretion. It occurs to some extent in certain general diseases and also in some affections of the skin, such as ichthyosis; nerve injuries may give rise to localized sweat suppression.

Treatment is based upon general principles; friction, warm and hot vapor baths, electricity and similar measures are of service.

Bromidrosis.

(*Synonym:* Osmidrosis.)

Describe bromidrosis.

Bromidrosis is a functional disturbance of the sweat-glands characterized by a sweat secretion of an offensive odor. The sweat production may be normal in quantity or more or less excessive, usually the

latter. The condition may be local or general, commonly the former. It is closely allied to hyperidrosis, and may often be considered identical, the odor resulting from rapid decomposition of the sweat secretion.

What parts are most commonly affected in bromidrosis?

The feet and the axillæ.

What is the treatment of bromidrosis?

It is essentially the same as that of hyperidrosis (*q. v.*), consisting of applications of astringent lotions, dusting-powders, especially those containing boric acid and salicylic acid, and the continuous application of diachylon ointment.

Chromidrosis.

Describe chromidrosis.

This is a rare functional disorder of the sweat-glands characterized by a secretion variously colored, and usually increased in quantity. It is, as a rule, limited to a circumscribed area. The most common color is red. The condition is probably of neurotic origin, and tends to recur.

Treatment should be invigorating and tonic, with special reference toward the nervous system.

Uridrosis.

Describe uridrosis.

Uridrosis is a rare condition in which the sweat secretion contains the elements of the urine, especially urea. In marked cases the salt may be noticeable upon the skin as a colorless or whitish crystalline deposit. In most instances it has been preceded or accompanied by partial or complete suppression of the renal functions.

Phosphoridrosis.

Describe phosphoridrosis.

Phosphoridrosis is a rare condition, in which the sweat is phosphorescent. It has been observed in the later stages of phthisis, in miliaria, and in those who have eaten of putrid fish.

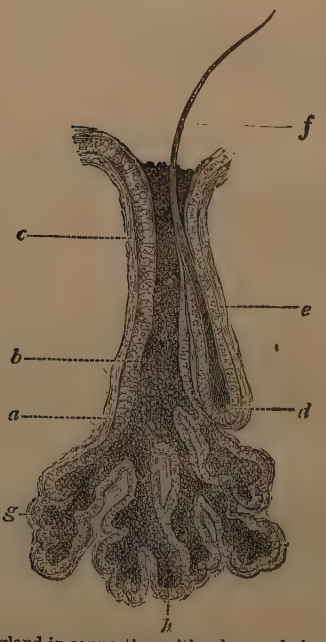
Seborrhœa.

(*Synonyms:* Steatorrhœa; Acne sebacea; Ichthyosis sebacea; Dandruff.)

What is seborrhœa?

Seborrhœa is a functional disease of the sebaceous glands, characterized by an excessive, and perhaps abnormal, secretion of sebaceous matter, appearing on the skin as an oily coating, crusts or scales.

FIG. 7.



A normal sebaceous gland in connection with a lanugo hair; greatly magnified. (*After Neumann.*)

a, Connective-tissue capsule; *b*, fatty secretion; *c*, *h*, fat-secreting cells; *d*, root of a lanugo hair; *e*, hair sac; *f*, hair shaft; *g*, acini of sebaceous gland.

At what age is seborrhœa usually observed?

Commonly between the ages of fifteen and forty. It may, however, occur at any age.

Name the parts most commonly affected.

The scalp, face, and (less frequently) the sternal and interscapular regions of the trunk. It is rarely seen on other parts.

What varieties of seborrhœa are encountered?

Seborrhœa oleosa and seborrhœa sicca; not infrequently the disease is of a mixed type.

What are the symptoms of seborrhœa oleosa?

The sole symptom is an unnatural oiliness, variable as to degree. Its most common site is the region of the nose and forehead. In occasional instances mild rosacea coexists.

Give the symptoms of seborrhœa sicca.

A variable degree of greasy scaliness, usually seated upon a pale or non-inflammatory surface.

The parts affected are covered scantily or more or less abundantly with somewhat greasy, grayish or brownish-gray scales. If the scalp is the part involved (*dandruff*), small particles of scales are found scattered through the hair, and when the latter is brushed or combed, fall over the shoulders. If upon the face, in addition to the scaliness, the sebaceous ducts are usually seen to be enlarged and filled with sebaceous matter, and in some instances the skin is more or less hyperæmic; and even mild inflammatory action may be present (*eczema seborrhoicum*).

Describe the symptoms of the ordinary or mixed type of the disease.

It is common upon the scalp. The skin is covered with irregularly diffused, greasy, grayish or brownish scales and crusts; in some cases moderate in quantity, in others so great that large, irregular masses are formed, pasting the hair to the scalp. If removed, the scales and crusts rapidly reform. The skin beneath is found pale or slate-colored. Extraneous matter, such as dust and dirt, collect upon the parts, and the whole mass may become more or less offensive. There is a strong tendency to falling of the hair. Itching may or may not be present.

Describe the symptoms of seborrhœa of the trunk.

Seborrhœa corporis differs in a measure, in its symptoms, from seborrhœa of other parts; it occurs as one or several irregular or circi-

nate, pale or slightly hyperæmic patches, covered with dirty or grayish-looking greasy scales or crusts, usually moderate in quantity, and upon removal found to have projections into the sebaceous ducts. It is usually seen upon the sternal region or upon the back between the shoulders.

What is the usual course of seborrhœa?

Essentially chronic, the disease varying in intensity from time to time. In occasional instances it disappears spontaneously.

Give the cause or causes of seborrhœa.

There is no single responsible factor. General debility, anæmia, chlorosis, dyspepsia, and similar conditions are to be variously looked upon as causative.

In some instances, however, the disease seems to be due to loss of tone in the glands and skin, and to be entirely independent of any constitutional or predisposing condition.

What is the pathology of seborrhœa?

Seborrhœa is a functional disease of the sebaceous glands, its products, as found upon the skin, being constituted of the sebaceous secretion, epithelial cells from the glands and ducts, and more or less extraneous matter. In long-continued and neglected cases slight atrophy of the gland structures may occur.

With what diseases would you be likely to confound seborrhœa?

Upon the scalp, with eczema and psoriasis; upon the face, with lupus erythematosus and eczema; and upon the trunk, with psoriasis and ringworm.

As a rule, the clinical features of seborrhœa are sufficiently characteristic to prevent error.

What are the differential points?

Eczema, psoriasis, and lupus erythematosus are diseases in which there are distinct *inflammatory symptoms*, such as thickening and infiltration and redness; moreover, psoriasis, and this holds true as to ringworm also, occurs in sharply-defined, circumscribed patches, and lupus erythematosus has a peculiar violaceous tint and an elevated and marginate border. A microscopic examination of the epidermic scrapings would be of crucial value in differentiating from ringworm.

What is the prognosis in seborrhœa?

Favorable. All types are curable, and when upon the non-hairy regions, usually readily so; upon the scalp it is often obstinate. Relapses are not uncommon.

In those cases of seborrhœa capitis which have been long-continued or neglected, and attended with loss of hair, this loss may be more or less permanent, although ordinarily much can be done to promote a regrowth (see *Treatment of Alopecia*).

How would you treat seborrhœa of the scalp?

By constitutional (if indicated) and local remedies; the former having in view correction or modification of the predisposing factor or factors, and the latter removal of the sebaceous accumulations and the application of mildly stimulating ointments or lotions.

What remedies are commonly employed in the constitutional treatment of seborrhœa?

The various tonics, such as iron, quinine, strychnia, cod-liver oil, arsenic, the vegetable bitters, laxatives, malt and similar preparations. The line of treatment is to be based upon indications. In some instances calx sulphurata, in one-tenth to one-fourth grain doses, four or five times daily, proves of advantage.

Describe the methods of freeing the scalp from the sebaceous accumulations.

In mild types of the disease shampooing with simple Castile soap (or any other good toilet soap) and hot water will suffice; in those cases in which there is considerable scale and crust formation, the tincture of green soap (tinct. saponis viridis) is to be employed in place of the toilet soap, and in some of these latter cases it may be necessary to soften the crusts with a previous soaking with olive oil.

The frequency of the shampoo depends upon the conditions. In mild cases, once in five or seven days will be sufficiently frequent to keep the parts clean, but in those cases in which there is rapid scale or crust production, once daily or every second day may at first be demanded.

Name the local applications usually most effectual in seborrhœa of the scalp.

Sulphur, ammoniated mercury, salicylic acid and resorcin.

Sulphur is used in the form of an ointment, one to three drachms in the ounce. Ammoniated mercury, in the form of an ointment, twenty to sixty grains to the ounce. Salicylic acid, either alone as an ointment, twenty to forty grains to the ounce; or it may often be added with advantage, in the same proportion, to the sulphur or ammoniated mercury ointment above named. Resorcin, either as an ointment, twenty to sixty grains to the ounce, or as an alcoholic or aqueous lotion, as the following :—

℞. Resorcini, ... ℥iss
Ol. ricini, ... ♏xx
Alcoholis, ... f℥iv. M.

If an aqueous lotion is desirable, then in the above formula the oleum ricini is replaced with glycerine and the alcohol with water.

How are the remedies to be applied?

A small quantity of the lotion or ointment is to be gently, but thoroughly, rubbed into the skin; in the beginning of the treatment, once or twice daily, later, as the disease becomes less active, once every second or third day.

How is seborrhœa upon other parts to be treated?

In the same general manner as seborrhœa of the scalp, except that the local applications must be somewhat weaker. The several sulphur lotions employed in the treatment of acne (*q. v.*) may also be used when the disease is upon these parts.

Comedo.

(*Synonyms:* Blackheads; Flesh-worms.)

What is comedo?

Comedo is a disorder of the sebaceous glands, characterized by yellowish or blackish pin-point or pin-head-sized elevations corresponding to the gland orifices.

At what age and upon what parts are comedones usually found?

Between the ages of fifteen and thirty, and upon the face and upper part of the trunk, where they may exist sparsely or in great

numbers. If numerous, they are apt to give the parts a greasy or soiled appearance.

Describe an individual lesion.

It is pin-point to pin-head in size, dark yellowish, and usually with a central blackish point (hence the name *blackheads*). There is scarcely perceptible elevation, unless the amount of retained secretion is excessive. Upon pressure this may be ejected, the small, rounded orifice through which it is expressed giving it a thread-like shape (hence the name *flesh-worms*).

What is the usual course of comedo?

Chronic. The lesions may persist indefinitely or the condition may be somewhat variable. In many instances, either as a result of pressure or in consequence of chemical change in the sebaceous plugs, inflammation is excited and acne results. The two conditions are, in fact, usually associated.

FIG. 8.

Demodex Folliculorum, × 300. Ventral surface. (*After Simon.*)

To what may comedo often be ascribed?

To disorders of digestion, constipation, chlorosis, menstrual disturbance, lack of tone in the muscular fibres of the skin, the infrequent use of soap, and working in a dirty or dusty atmosphere.

A small parasite (*demodex folliculorum*, *acarus folliculorum*) is sometimes found in the sebaceous mass, but its presence is accidental and is without etiological significance. It is also found in healthy follicles.

What is the pathology of comedo?

The sebaceous ducts or glands, or both, become blocked up with retained secretion and epithelial cells. The dark points which usually mark the lesions are probably due to accumulation of dirt.

Some writers maintain that these are due to the presence of pigment granules resulting from chemical change in the sebaceous matter.

Is there any difficulty in the diagnosis of comedo?

No. It can scarcely be confounded with milium, as in this latter disease the lesion has no open outlet, no black point, and the contents cannot be squeezed out.

Give the prognosis of comedo.

The result of treatment is usually favorable, although the disease is often rebellious. Relapses are not uncommon.

How would you treat a case of comedo?

By systemic (if indicated) and local measures.

The constitutional treatment aims at correction or palliation of the predisposing conditions, and the external applications have in view a removal of the sebaceous plugs and stimulation of the glands and skin to healthy action.

FIG. 9.

Comedo Extractor.

Name the systemic remedies commonly employed.

Cod-liver oil, iron, quinine, arsenic, nux vomica and other tonics; ergot in those cases in which there is lack of muscular tone, salines and aperient pills in constipation. Calx sulphurata, in doses of one-tenth to one-fourth grain four or five times daily, is occasionally of advantage. The digestion is to be looked after and the bowels kept regular; indigestible food of all kinds is to be interdicted. Hygienic measures, such as open-air exercise, are often of service.

Describe the local treatment.

Steaming the face or prolonged applications of hot water; washing with ordinary toilet soap and hot water, or, in sluggish cases, using tincture of green soap (tinct. saponis viridis) instead of the toilet soap; removal of the sebaceous plugs by mechanical means, such as lateral pressure with the finger ends or perpendicular pressure with a watch-key with rounded edges, or with an instrument specially contrived for this purpose; and after these preliminary

measures, which should be carried out every night, a stimulating sulphur or mercurial ointment or lotion, such as employed in the treatment of acne (*q. v.*), is to be thoroughly applied. The following is valuable :—

℞. Zinci sulphatis,
Potassii sulphureti, ... āā . . . . ʒj
Aquæ rosæ, ... ʒ iv. M.

Should slight scaliness or a mild degree of irritation of the skin be brought about, external treatment is to be discontinued for a few days and soothing applications made.

Milium.

(*Synonyms :* Grutum; Strophulus Albidus.)

What is milium?

Milium consists in the formation of small, whitish or yellowish, rounded, pearly, non-inflammatory elevations situated in the upper part of the corium.

Describe the clinical appearances.

The lesions are usually pin-head in size, whitish or yellowish, seemingly more or less translucent, rounded or acuminated, without aperture or duct, are superficially seated in the skin, and project slightly above the surface.

They appear about the face, especially about the eyelids; they may occur also, although rarely, upon other parts. But one or several may be present, or they may exist in numbers.

What is the course of milium?

The lesions develop slowly, and may then remain stationary for years.

Their presence gives rise to no disturbance, and, unless they are large in size or exist in numbers, causes but slight disfigurement. In rare instances they may undergo calcareous metamorphosis, constituting the so-called *cutaneous calculi.*

What is the anatomical seat of milium?

The sebaceous gland (probably one or several of the superficially-

situated acini), the duct of which is in some manner obliterated, the sebaceous matter collects, becomes inspissated and calcareous, forming the pin-head lesion. The epidermis is the external covering.

Is milium amenable to treatment?

Yes; promptly so.

What is the treatment?

The usual plan is to prick or incise each lesion and press out the contents. In some milia it may be necessary also, in order to prevent a return, to touch the base of the excavation with tincture of iodine or with silver nitrate. Electrolysis is also effectual.

FIG. 10.

Milium Needle.

Steatoma.

(*Synonyms:* Sebaceous Cyst; Sebaceous Tumor; Wen.)

Describe steatoma.

Steatoma, or sebaceous cyst, appears as a variously-sized, elevated, rounded or semi-globular, soft or firm tumor, freely movable and painless, and having its seat in the corium or subcutaneous tissue. The overlying skin is normal in color, or it may be whitish or pale from distention; in some a gland-duct orifice may be seen, but, as a rule, this is absent.

What are the favorite regions for the development of steatoma?

The scalp, face and back. One or several may be present.

What is the course of sebaceous cysts?

Their growth is slow, and, after attaining a variable size, may remain stationary. They may exist indefinitely without causing any inconvenience beyond the disfigurement. Exceptionally, in enormously distended growths, suppuration and ulceration result.

What is the pathology?

A steatoma is a cyst of the sebaceous gland and duct, produced by retained secretion. The contents may be hard and friable, soft and cheesy, or even fluid, of a grayish, whitish or yellowish color, and with or without a fetid odor; the mass consisting of fat drops, epidermic cells, cholesterin, and sometimes hairs.

Are sebaceous cysts likely to be confounded with gummata?

No. Gummata grow more rapidly, are usually painful to the touch, are not freely movable, and tend to break down and ulcerate.

Describe the treatment of steatoma.

A linear incision is made, and the mass and enveloping sac dissected out. If the sac is permitted to remain, reproduction almost invariably takes place.

CLASS II.—INFLAMMATIONS.

Erythema Simplex.

What do you understand by erythema simplex?

Erythema simplex is a hyperæmic disorder characterized by redness, occurring in the form of variously-sized and shaped, diffused or circumscribed, non-elevated patches.

Name the two general classes into which the simple erythemata are divided.

Idiopathic and symptomatic.

What do you include in the idiopathic class?

Those erythemas due to external causes, such as cold and heat (*erythema caloricum*), the action of the sun (*erythema solare*), traumatism (*erythema traumaticum*), and the various poisons or chemical irritants (*erythema venenatum*).

What do you include in the symptomatic class?

Those rashes often preceding or accompanying certain of the systemic diseases, and those due to disorders of the digestive tract, and to the ingestion of certain drugs.

Describe the symptoms of erythema simplex.

The essential symptom is redness—simple hyperæmia—without elevation or infiltration, disappearing under pressure, and sometimes attended by slight heat or burning; it may be patchy or diffused. In the idiopathic class, if the cause is continued, dermatitis may result.

What is to be said about the distribution of the simple erythemata?

The idiopathic rashes, as inferred from the nature of the causes, are usually limited.

The symptomatic erythemas are more or less generalized; desquamation rarely follows.

Describe the treatment of the simple erythemata.

A removal of the cause in idiopathic rashes is all that is needed, the erythema sooner or later subsiding. The same may be stated of the symptomatic erythemata, but in these there is at times difficulty in recognizing the etiological factor; constitutional treatment, if necessary, is to be based upon general principles.

Local treatment, which is rarely needed, consists of the use of dusting-powders or mild cooling and astringent lotions, such as are employed in the treatment of acute eczema (*q. v.*).

Erythema Intertrigo.

(*Synonym:* Chafing.)

What do you understand by erythema intertrigo?

Erythema intertrigo is a hyperæmic disorder occurring on parts where the natural folds of the skin come in contact, and is characterized by redness, to which may be added an abraded surface and maceration of the epidermis.

Describe the symptoms of erythema intertrigo.

The skin of the involved region gradually becomes hyperæmic, but is without elevation or infiltration; a feeling of heat and soreness is usually experienced. If the condition continue, the increased perspiration and moisture of the parts give rise to maceration of the

epidermis and a mucoid discharge; actual inflammation may eventually result.

What is the course of erythema intertrigo?

The affection may pass away in a few days or persist several weeks, the duration depending, in a great measure, upon the cause.

Mention the causes of erythema intertrigo.

The causes are usually local. It is seen chiefly in children, especially in fat subjects, in whom friction and moisture of contiguous parts of the body, usually the region of the neck, buttocks and genitalia, are more common; in such, uncleanliness or the too free use of soap washings will often act as the exciting factor. Disorders of the stomach or intestinal canal apparently have a predisposing influence.

What treatment would you advise in erythema intertrigo?

The folds or parts are to be kept from contact by means of lint or absorbent cotton. Cleanliness is essential, but it is to be kept within the bounds of common sense. Dusting-powders and cooling and astringent lotions, such as are employed in the treatment of acute eczema (*q. v.*), are to be advised. The following lotion is valuable:—

℞. Pulv. calaminæ,
Pulv. zinci oxidi, ... aa . . . . ʒj
Glycerinæ, ... ♏xxx
Alcoholis, ... fʒij
Aquæ, ... Oss. M.

In persistent or obstinate cases attention should also be directed to the state of the general health, especially as regards the digestive tract.

Erythema Multiforme.

What is erythema multiforme?

Erythema multiforme is an acute, inflammatory disease, characterized by reddish, more or less variegated macules, papules, and tubercles, occurring as discrete lesions or in patches of various size and shape.

Upon what parts of the body does the eruption appear?

Usually upon the extremities, especially the dorsal aspect, from the knees and elbows down; it may, however, be more or less general.

Describe the symptoms of erythema multiforme.

With or without precursory symptoms of malaise, gastric uneasiness or rheumatic pains, the eruption suddenly makes its appearance, assuming an erythematous, papular, tubercular or mixed character; as a rule, one type of lesion predominates. The lesions tend to increase in size and intensity, remain stationary for several days or a week, and then gradually fade; during this time there may have been outbreaks of new lesions. In color they are pink, red, or violaceous. Slight itching may or may not be present.

What type of the eruption is most common?

The papular, appearing usually upon the backs of the hands and forearms, and not infrequently, also, upon the face, legs and feet. The papules are usually pea-sized, flattened, and of a dark red or violaceous color.

Describe the various shapes which the erythematous lesions may assume.

Often the patches are distinctly ring-shaped, with a clear centre—*erythema annulare;* or they are made up of several concentric rings, presenting variegated coloring—*erythema iris;* or a more or less extensive patch may spread with a sharply-defined border, the older part tending to fade—*erythema marginatum;* or several rings may coalesce, with a disappearance of the coalescing parts, and serpentine lines or bands result—*erythema gyratum.*

Does the eruption of erythema multiforme ever assume a vesicular or bullous character?

Yes. In exceptional instances, the inflammatory process may be sufficiently intense to produce vesiculation, usually at the summits of the papules—*erythema vesiculosum;* or, in rare instances, blebs may be formed—*erythema bullosum.*

What is the course of erythema multiforme?

Acute, the symptoms disappearing spontaneously, usually in one to three weeks.

Mention the etiological factors in erythema multiforme.

The causes are obscure. Digestive disturbance, rheumatic conditions, and the ingestion of certain drugs are at times influential. It is most frequently observed in spring and autumn months, and in early adult life. The disease is not uncommon.

What is the pathology of erythema multiforme?

It is a mildly inflammatory disorder, somewhat similar to urticaria, and presumably due to vasomotor disturbance; the amount of exudation, which is variable, determines the character of the lesions.

Name the diagnostic points of erythema multiforme.

The multiformity of the eruption, the size of the papules, often its limitation to certain parts, its course and the entire or comparative absence of itching.

It resembles urticaria at times, but the lesions of this latter disease are evanescent, disappearing and reappearing usually in the most capricious manner, are commonly seated about the trunk, and are exceedingly itchy.

What prognosis would you give in erythema multiforme?

Always favorable; the eruption usually disappears in ten days to three weeks, although in rare instances new crops may appear from day to day or week to week, and the process last one or two months.

Is the course of erythema multiforme influenced by treatment?

It is doubtful.

What remedies are commonly prescribed in erythema multiforme?

Quinia, and, if constipation is present, saline laxatives; local applications are rarely required, but in those exceptional cases in which itching or burning is present, cooling lotions of alcohol and water or vinegar and water are to be prescribed.

Erythema Nodosum.

(*Synonym:* Dermatitis contusiformis.)

What is erythema nodosum?

Erythema nodosum is an inflammatory affection, of an acute type, characterized by the formation of variously-sized, roundish, more or less elevated erythematous nodes.

Is there any special region of predilection for the eruption of erythema nodosum?

Yes. The tibial surfaces, to which the eruption is often limited; not infrequently, however, other parts may be involved.

Describe the symptoms of erythema nodosum.

The eruption makes its appearance suddenly, and is usually ushered in with febrile disturbance, gastric uneasiness, malaise, and rheumatic pains and swelling about the joints. The lesions vary in size from a cherry to a hen's egg, are rounded or ovalish, tender and painful, have a glistening and tense look, and are of a bright red, erysipelatous color which merges gradually into the sound skin. At first they are somewhat hard, but later they soften and appear as if about to break down, but this, however, never occurs, absorption invariably taking place. In occasional instances they are hemorrhagic. Lymphangitis is sometimes observed.

Are the lesions in erythema nodosum usually numerous?

No. As a rule not more than five to twenty nodes are present.

What is the course of erythema nodosum?

Acute; the disease terminating usually in one to three weeks. As the lesions are disappearing they present the various changes of color observed in an ordinary bruise.

What is known in regard to the etiology?

The affection is closely allied to erythema multiforme, and may, indeed, be considered as a form of that disease. It occurs most frequently in children and young adults, and usually in the spring and autumn months. Digestive disturbance and rheumatic pains and swellings are often associated with it.

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What is the pathology of erythema nodosum?

The disease is to be viewed as an inflammatory œdema, probably resulting, in some instances at least, from an inflammation of the lymphatics or an embolism of the cutaneous vessels.

From what diseases is erythema nodosum to be differentiated?

From bruises, abscesses and gummata.

How are the lesions of erythema nodosum to be distinguished from these several conditions?

By the bright red or rosy tint, the apparently violent character of the process, the number, situation and course of the lesions.

State the prognosis of erythema nodosum.

Favorable, recovery usually taking place in ten days to several weeks.

State the measures of treatment to be advised in erythema nodosum.

Rest, relative or absolute, depending upon the severity of the case, and an unstimulating diet; internally quinia and saline laxatives, and locally applications of lead water and laudanum.

Urticaria.

(*Synonyms:* Hives; Nettlerash.)

Give a definition of urticaria.

Urticaria is an inflammatory affection characterized by evanescent whitish, pinkish or reddish elevations, or wheals, variable as to size and shape, and attended by itching, stinging or pricking sensations.

Describe the symptoms of urticaria.

The eruption, erythematous in character and consisting of isolated pea or bean-sized elevations or of linear streaks or irregular patches, limited or more or less general, and usually intensely itchy, makes its appearance suddenly, with or without symptoms of preceding gastric derangement. The lesions are soft or firm, reddish or pinkish-white, with the peripheral portion of a bright red color,

and are fugacious in character, disappearing and reappearing in the most capricious manner.

What is the ordinary course of urticaria?

Acute. The disease is usually at an end in several hours or days.

Does urticaria always pursue an acute course?

No. In exceptional instances the disease is chronic, in the sense that new lesions continue to appear and disappear irregularly from time to time for months or several years, the skin rarely being entirely free (*chronic urticaria*).

Are subjective symptoms always present in urticaria?

Yes. Itching is commonly a conspicuous symptom, although at times pricking, stinging or a feeling of burning constitutes the chief sensation.

Is the eruption of urticaria invariably of typical character?

No.

In what way may the eruption be atypical?

Exceptionally the wheals, or lesions, are peculiar as to formation, or another condition or disease may be associated, hence the varieties known as urticaria papulosa, urticaria hæmorrhagica, urticaria tuberosa, and urticaria bullosa.

Describe urticaria papulosa.

Urticaria papulosa (formerly called *lichen urticatus*) is a variety in which the lesions are small and papular. They appear as a rule suddenly, rarely in numbers, are scattered, and after a few hours, or more commonly, days, gradually disappear. The itching is intense, and in consequence their apices are excoriated. It is seen more particularly in ill-cared for and badly nourished young children.

Describe urticaria hæmorrhagica.

Urticaria hæmorrhagica is characterized by lesions similar to ordinary wheals, except that they are somewhat hemorrhagic, partaking, in fact, of the nature of both urticaria and purpura.

Describe urticaria tuberosa.

In urticaria tuberosa the lesions, instead of being pea- or bean-

sized, as in typical urticaria, are large and node-like (also called *giant urticaria*).

Describe urticaria bullosa.

Urticaria bullosa is a variety in which the inflammatory action has been sufficiently great to give rise to fluid exudation, the wheals resulting in the formation of blebs.

What is the etiology of urticaria?

Any irritation from disease, functional or organic, of any internal organ, may give rise to the eruption in those predisposed. Gastric derangement from indigestible or peculiar articles of food and the ingestion of certain drugs are often provocative. Various rheumatic and nervous disorders are not infrequently associated with it, and are doubtless of etiological significance. External irritants, also, in predisposed subjects, are at times responsible.

What is the pathology of urticaria?

Anatomically a wheal is seen to be a more or less firm elevation consisting of a circumscribed or somewhat diffused collection of semi-fluid material in the upper layers of the skin. The vaso-motor nervous system is probably the main factor in its production; dilatation following spasm of the vessels results in effusion, and in consequence, the overfilled vessels of the central portion are emptied by pressure of the exudation and the central paleness results, while the pressed-back blood gives rise to the bright red periphery.

From what diseases is urticaria to be differentiated?

From erythema simplex, erythema multiforme, erythema nodosum, and erysipelas.

Mention the diagnostic points of urticaria.

The acuteness, character of the lesions, their evanescent nature, the irregular or general distribution, and the intense itching.

What is the prognosis in urticaria?

The acute disease is usually of short duration, disappearing spontaneously or as the result of treatment, in several hours or days; it may recur upon exposure to the exciting cause. The prognosis of chronic urticaria is to be guarded, and will depend upon the ability to discover and remove or modify the predisposing condition.

What systemic measures are to be prescribed in acute urticaria?

Removal of the etiological factor is of first importance. This will be found in most cases to be gastric disturbance from the ingestion of improper or indigestible food, and in such cases a saline purgative is to be given; or if the case is severe and food still in the stomach, an emetic, such as mustard or ipecac, will act more promptly. Alkalies, especially sodium salicylate, are useful. The diet should be for the time of a simple character.

What systemic measures are to be prescribed in chronic urticaria?

The cause must be sought for and treatment directed toward its removal or modification. Treatment will, therefore, depend upon indications. In obscure cases, quinine, sodium salicylate, arsenic, pilocarpine, *atropia*, potassium bromide and ichthyol are to be variously tried; general galvanization is at times useful, as is also a change of scene and climate.

What external applications would you advise for the relief of the subjective symptoms?

Cooling lotions of alcohol and water or vinegar and water; lotions of carbolic acid, one to three drachms to the pint; of thymol, one-fourth to one drachm to the pint of alcohol and water; of liquor carbonis detergens, one to three ounces to the pint of water, or the following:—

℞. Acidi carbolici, ... ʒj–ʒiij
Acidi borici, ... ʒiv
Glycerinæ, ... fʒj
Alcoholis, ... fʒij
Aquæ. . . . . fʒxiv. M.

Alkaline baths are also useful, and may be advantageously followed by dusting powders of starch and zinc oxide.

Urticaria Pigmentosa.

(*Synonym:* Xanthelasmoidea.)

Describe urticaria pigmentosa.

Urticaria pigmentosa is a rare disease, variously viewed as an unusual form of urticaria and as an urticaria-like eruption in which there is an element of new growth in the lesions. It begins usually in infancy or early childhood and continues for months or years, and is characterized by slightly, moderately, or intensely itchy, wheal-like elevations, which are more or less persistent and leave yellowish, orange-colored, greenish or brownish stains. In some cases subjective symptoms are entirely absent.

The nature of the disease is obscure and treatment unsatisfactory. Ordinarily as early youth or adult life is reached it spontaneously disappears.

Dermatitis.

What is implied by the term dermatitis?

Dermatitis, or inflammation of the skin, is a term employed to designate those cases of cutaneous disturbance, usually acute in character, which are due to the action of irritants.

Mention some examples of cutaneous disturbance to which this term is applied.

The dermatic inflammation due to the action of excessive heat or cold, to caustics and other chemical irritants, and to the ingestion of certain drugs.

What several varieties are commonly described?

Dermatitis traumatica, dermatitis calorica, dermatitis venenata, and dermatitis medicamentosa.

Describe dermatitis traumatica.

Under this head are included all forms of cutaneous inflammation due to traumatism. To the dermatologist the most common met with is that produced by the various animal parasites and from continued scratching; in such, if the cause has been long-continued and persistent, a variable degree of inflammatory thickening of the skin

and pigmentation result, the latter not infrequently being more or less permanent. The inflammation due to tight-fitting garments, bandages, etc., also illustrates this class.

What is the treatment of dermatitis traumatica?

Removal of the cause, and, if necessary, the application of soothing ointments or lotions.

What is dermatitis calorica?

Cutaneous inflammation, varying from a slight erythematous to a gangrenous character, produced by excessive heat (*burns*) or cold (*frostbite*).

Give the treatment of dermatitis calorica.

In burns, if of a mild degree, the application of sodium bicarbonate, as a powder or saturated solution, is useful; in the more severe grade, a two- to five-per-cent. solution will probably be found of greater advantage. Other soothing applications may also be employed.

In frostbite, seen immediately after exposure, the parts are to be brought gradually back to a normal temperature, at first by rubbing with snow or applying cold water. Subsequently, in ordinary chilblains, stimulating applications, such as oil of turpentine, balsam of Peru, tincture of iodine, ichthyol, and strongly carbolized ointments are of most benefit. If the frostbite is of a vesicular, pustular, bullous, or escharotic character, the treatment consists in the application of soothing remedies, such as are employed in other like inflammatory conditions.

What do you understand by dermatitis venenata?

All inflammatory conditions of the skin due to contact with deleterious substances are included under this head, but the most common causes are the rhus plants—*poison ivy* (or *poison oak*) and *poison sumach* (*poison dogwood*). Mere proximity to these plants will, in some individuals, provoke cutaneous disturbance (*rhus poisoning*), although they may be handled by others with impunity.

Describe the symptoms of rhus poisoning.

The symptoms appear usually soon after exposure, and consist of an inflammatory condition of the skin, of an eczematous nature,

varying in degree from an erythematous to a bullous character, and with or without œdema and swelling. As a rule, marked itching and burning are present. The face, hands, forearms and genitalia are favorite parts, although it may in many instances involve a greater portion of the whole surface.

What is the course of rhus poisoning?

It runs an acute course, terminating in recovery in one to six weeks. In those eczematously inclined, however, it may result in a veritable and persistent form of that disease.

How would you treat rhus poisoning?

By soothing and astringent applications, such as are employed in acute eczema (*q. v.*), and which are to be used freely. Among the most valuable are: a lotion of fluid extract of grindelia robusta, one to two drachms to four ounces of water; lotio nigra, either alone or followed by the oxide-of-zinc ointment; a saturated solution of boric acid, with a half to two drachms of carbolic acid to the pint; a lotion of zinc sulphate, a half to four grains to the ounce; weak alkaline lotions; cold cream, petrolatum, and oxide-of-zinc ointments.

What do you understand by dermatitis medicamentosa?

Under this head are included all eruptions due to the ingestion or absorption of certain drugs.

In rare instances one dose will have such effect; commonly, however, it results only after several days' or weeks' continued administration. With some drugs such effect is the rule, with others it is exceptional, nor are all individuals equally susceptible.

How is the eruption produced in dermatitis medicamentosa?

In some instances it is probably due to the elimination of the drug through the cutaneous structures; in others, to the action of the drug upon the nervous system.

What is the character of the eruption in dermatitis medicamentosa?

It may be erythematous, papular, urticarial, vesicular, pustular or bullous, and, if the administration of the drug is continued, even gangrenous.

Name the more common drugs having such action.

Antipyrin, arsenic, atropia (or belladonna), bromides, chloral, copaiba, cubebs, digitalis, iodides, mercury, opium (or morphia), quinine, salicylic acid, stramonium and turpentine.

State frequency and types of eruption due to the ingestion of antipyrin.

Not uncommon. *Erythematous*, morbilliform and erythemato-papular; itching is usually present and moderate desquamation may follow.

Mention frequency and types of eruption due to the ingestion of arsenic.

Rare. Erythematous, erythemato-papular; exceptionally, herpetic, and pigmentary. Herpes zoster has been thought to follow its use.

Mention frequency and types of eruption due to the ingestion of atropia (or belladonna).

Not uncommon. *Erythematous* and *scarlatinoid*; usually no febrile disturbance, and desquamation seldom follows.

Give frequency and types of cutaneous disturbance following the administration of the bromides (bromine).

Common. *Pustular*, sometimes furuncular and carbuncular and superficially ulcerative. Co-administration of arsenic or potassium bitartrate is thought to have a preventive influence.

State frequency and types of cutaneous disturbance due to the administration of chloral.

Occasional. Scarlatinoid and urticarial, and exceptionally purpuric; in rare instances, if drug is continued, eruption becomes vesicular, hemorrhagic, ulcerative and even gangrenous.

State frequency and types of eruption following the administration of copaiba.

Not uncommon. *Urticarial*, erythemato-papular and *scarlatinoid*.

Mention frequency and types of eruption resulting from the ingestion of cubebs.

Uncommon. Erythematous and small papular.

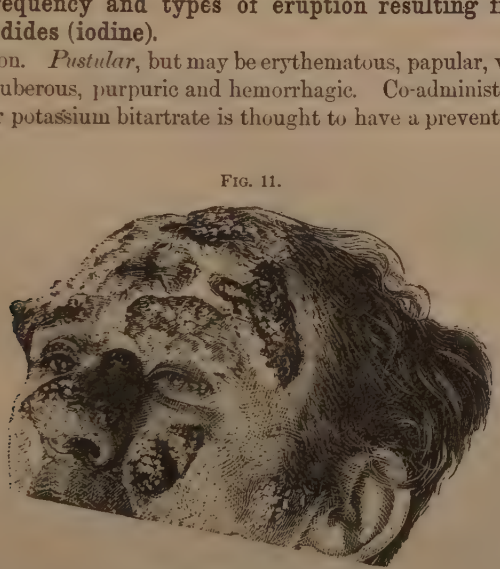
Mention frequency and types of eruption resulting from the administration of digitalis.

Exceptional. Scarlatinoid and papular.

State frequency and types of eruption resulting from the iodides (iodine).

Common. *Pustular*, but may be erythematous, papular, vesicular, bullous, tuberous, purpuric and hemorrhagic. Co-administration of arsenic or potassium bitartrate is thought to have a preventive influence.

FIG. 11.



A somewhat rare form of eruption from the ingestion of iodine compounds. (*After J. C. McGuire.*)

Give the frequency and types of eruption observed to follow the administration of mercury.

Exceptional. Erythematous and erysipelatous.

Give the frequency and types of the cutaneous disturbance following the ingestion of opium (or morphia).

Not uncommon. Erythematous and *scarlatinoid*, and sometimes urticarial.

Mention the frequency and the types of eruption following the administration of quinine.

Not infrequent. Usually *erythematous*, but may be urticarial,

erythemato-papular, and even purpuric. There is, in some instances, preceding or accompanying systemic disturbance. Furfuraceous or lamellar desquamation often follows.

State frequency and types of eruption resulting from the ingestion of salicylic acid.

Not common. Erythematous and urticarial; exceptionally, vesicular, pustular, bullous, and ecchymotic.

Give frequency and type of cutaneous disturbance due to the administration of stramonium.

Not common. Erythematous.

State frequency and types of eruption resulting from the administration of turpentine.

Not uncommon. *Erythematous*, and small-papular; exceptionally vesicular.

Feigned Eruptions.

What do you understand by feigned eruptions?

Feigned, or artificial, eruptions, occasionally met with in hysterical females and in others, are produced, for the purpose of deception, by the action of friction, cantharides, acids or strong alkalies; the cutaneous disturbance may, therefore, be erythematous, vesicular, bullous or gangrenous. It is usually limited in extent, and, as a rule, seen only on parts easily reached by the hands.

Dermatitis Gangrænosa.

What do you understand by dermatitis gangrænosa?

Dermatitis gangrænosa is an exceedingly rare affection, characterized by the formation of gangrænous spots and patches. It may be idiopathic or symptomatic.

As an idiopathic disease, it begins as erythematous, dark-red spots—usually preceded and accompanied by mild or grave systemic disturbance—which gradually pass into gangrene and sloughing; the eventual termination may be fatal, or recovery may take place. As a symptomatic disease, it is occasionally met with in diabetes and in grave cerebral and spinal affections.

Treatment is based upon general principles.

Erysipelas.

What is erysipelas?

Erysipelas is an acute specific inflammation of the skin and subcutaneous tissue, commonly of the face, characterized by shining redness, swelling, œdema, heat, and a tendency in some cases to vesicle and bleb formation, and accompanied by more or less general febrile disturbance.

Describe the symptoms and course of erysipelas.

A decided rigor or a feeling of chilliness followed by febrile action usually ushers in the cutaneous disturbance. The skin at a certain point or part, commonly where there is a lesion of continuity, becomes bright red and swollen; this spreads by peripheral extension, and in the course of several hours involves a portion or the whole region. The parts are shining red, swollen, of an elevated temperature, and sharply defined against the sound skin. After several days or a week, during which time there is usually continued mild or severe febrile action, the process begins to subside, and is followed by epidermic desquamation.

What is erysipelas migrans (or erysipelas ambulans)?

A variety of erysipelas which, after a few hours or days, disappears at one region and appears at another, and so continues for one or several weeks.

Is the cutaneous disturbance always simply erythematous in character?

No. In some cases vesicles and blebs may be present; and in others the disease seriously involves the deeper parts, and is accompanied by grave constitutional symptoms. In exceptional instances sloughing takes place.

What is the cause of erysipelas?

The disease is thought to be due to a specific microbe. Depression of the vital forces and local abrasions are predisposing.

State the diagnostic points.

The character of the onset, the shining redness and swelling, the sharply-defined border, and the accompanying febrile disturbance.

What is the prognosis in erysipelas?

In most instances the disease runs a favorable course, terminating in recovery in one to three weeks. Exceptionally, in severe cases, a fatal termination ensues.

What is the treatment of erysipelas?

Internally, a purge, followed by the tincture of the chloride of iron and quinia, and stimulants if needed. *Locally*, a mild dusting powder, or ointment, a saturated solution of boric acid, or a ten- to twenty-per-cent. ointment of ichthyol may be employed.

In some cases the spread of the disease is apparently controlled by painting the bordering healthy skin with a ring of tincture of iodine or strong solution of nitrate of silver.

Furunculus.

(*Synonyms:* Furuncle; Boil.)

Define furunculus.

Furunculus, or boil, is an acute, deep-seated, inflammatory, circumscribed, rounded or more or less acuminated, firm, painful formation, usually terminating in central suppuration.

Describe the symptoms and course.

A boil begins as a small, rounded or imperfectly defined reddish spot, or as a small, superficial pustule; it increases in size, and when well advanced appears as a pea or cherry-sized, circumscribed, reddish elevation, with more or less surrounding hyperæmia and swelling; it is painful and tender, and ends, in the course of several days or a week, in the formation of a central slough or "*core*," which finally involves the central overlying skin (*pointing*). One or several may be present, gradually maturing and disappearing. Insignificant scarring may remain.

In some cases sympathetic constitutional disturbance, more or less marked, is noticed.

What is a blind boil?

A blind boil is a boil sluggish in its course and which exhibits little, if any, tendency to point or break.

What is furunculosis?

Furunculosis is that condition in which boils, singly or in crops, continue to appear, irregularly, for weeks or months.

State the etiology of furuncle.

A depraved state of the general health is often to be considered as a predisposing factor. The immediate, exciting cause is, according to recent investigation, the entrance into the follicle of a peculiar microbe.

What is the pathology of furuncle?

A boil is an inflammatory formation having its starting point in a sebaceous-gland, sweat-gland, or hair-follicle. The core, or central slough, is composed of pus and of the tissue of the gland in which it had its origin.

How would you distinguish a boil from a carbuncle?

A boil is comparatively small, rounded or acuminate, and has but one point of suppuration; a carbuncle is large, flattened, intensely painful, often with grave systemic disturbance, and has, moreover, several centres of suppuration.

State the prognosis.

When occurring in crops (furunculosis) the affection is often rebellious; recovery, however, finally resulting, sooner or later, in every instance.

What is the method of treatment of furunculus?

If there be but one lesion, with no tendency to the appearance of others, local treatment alone is usually employed. If, however, several or more are present, or if there is a tendency to successive development, both constitutional and local measures are demanded.

Name the internal remedies employed.

Such nutrients and tonics as cod-liver oil, malt, quinine, strychnia, iron and arsenic; in some instances calx sulphurata, one-tenth- to one-fourth-grain doses every three or four hours, is of service.

What is the external treatment?

Local treatment consists in the beginning, with the hope of aborting the lesion, of the application of carbolic acid to the central por-

tion, or the use of a twenty-five-per-cent. ointment of ichthyol applied as a plaster :—

℞. Ichthyol, ... ʒj
Emp. plumbi, ... ʒij
Emp. resinæ, ... ʒj. M.

Or the injection of a five-per-cent. solution of carbolic acid into the apex of the boil may be tried if the formation is more advanced. If suppuration is fully established, evacuation of the contents, followed by antiseptic applications, constitutes the best method.

A saturated solution of boric acid or a lotion of corrosive sublimate (one to three grains to the ounce) applied to the immediate neighborhood of the boil or boils tends to prevent the formation of new lesions.

Carbunculus.

(*Synonyms :* Anthrax; Carbuncle.)

What is carbuncle?

A carbuncle is an acute, usually egg to palm-sized, circumscribed, phlegmonous inflammation of the skin and subcutaneous structures, terminating in a slough.

At what age and upon what parts is carbuncle usually observed?

In middle and advanced life, and more commonly in men.

It is seen most frequently at the nape of the neck and upon the upper part of the back.

What are the symptoms and course of carbuncle?

There is rarely more than one lesion present. It begins, usually with preceding and accompanying malaise, chilliness and febrile disturbance, as a firm, flat, inflammatory infiltration in the deeper skin and subcutaneous tissue, spreading laterally and finally involving an area of one to several inches in diameter. The infiltration and swelling increase, the skin becomes of dark red color, and sooner or later, usually at the end of ten days or two weeks, softening and suppuration begin to take place; the skin finally giving away at several points, through which sanious pus exudes; the whole mass finally sloughs

away either in portions or in its entirety, resulting in a deep ulcer, which slowly heals and leaves a permanent cicatrix.

In some cases, especially in old people, sympathetic constitutional disturbance of a grave character is noted, and a fatal result may ensue.

What is the cause of carbuncle?

The same causes are considered to be operative in carbunculus as in furuncle; general debility and depression, from whatever cause, predisposing to its formation, and the introduction of a peculiar microbe being at present looked upon as the exciting factor.

What is the pathology?

The inflammation starts simultaneously from numerous points, from the hair-follicles, sweat-glands or sebaceous-glands. The inflammatory centres break down, and the pus finds its way to the surface; finally the process ends in gangrene of the whole area.

How would you distinguish carbuncle from a boil?

By its flat character, greater size, and multiple points of suppuration.

What is the prognosis of carbuncle?

Occurring in those greatly debilitated or in late life, and in those cases in which two or more lesions exist, or when seated about the head, the prognosis is always to be guarded, as a fatal result is not uncommon. In fact, in every instance the disease is to be considered of possible serious import.

What constitutional treatment is usually employed in carbuncle?

A full nutritious diet, the use of such remedies as iron, quinia, nux vomica, with malt and stimulants, if indicated. Calx sulphurata, one-tenth to one-fourth grain every two or three hours, appears, in some instances, to have a beneficial effect. If the pain is severe, morphia or chloral should be given.

What external measures are employed?

In the early part of the formation, injection of a five or ten per cent. carbolic acid solution, or covering the whole area with a twenty-five per cent. ichthyol ointment, may be employed. When it has

broken down the pus may be drawn out with a cupping-glass, and carbolized glycerine or carbolized water introduced into each opening, and the ichthyol ointment superimposed. If the whole part has sloughed, it should be removed as rapidly as possible, and antiseptic dressings used. Or, if its progress is slow, and grave systemic disturbance be present, the whole part may be incised and curetted, and then treated antiseptically.

Pustula Maligna.

(*Synonyms:* Anthrax; Malignant Pustule.)

What is malignant pustule?

Malignant pustule is a furuncle- or carbuncle-like lesion resulting from inoculation of the virus generated in animals suffering from splenic fever, or "charbon," and which is accompanied by constitutional symptoms of more or less gravity. A fatal termination is not unusual.

What is the cause of pustula maligna?

The disease is due to the presence of the bacillus anthracis.

What is the treatment of malignant pustule?

Early excision or destruction with caustic potash, with subsequent antiseptic dressings; and internally the free use of stimulants and tonics.

Post-mortem Pustule.

(*Synonym:* Dissection Wound.)

Describe post-mortem pustule.

Post-mortem pustule develops at the point of inoculation, beginning as an itchy red spot, becoming vesico-pustular, and later pustular, with usually a broad inflammatory base, and accompanied with more or less pain and redness and not infrequently lymphangitis, erysipelatous swelling, and slight or severe sympathetic constitutional disturbance.

What is the treatment of post-mortem pustule?

Treatment consists in opening the pustule and thorough cauterization, and the subsequent use of antiseptic applications or dressings. *Internally* quinia and stimulants if indicated.

Frambœsia.

(*Synonyms:* Yaws; Pian; Endemic Verrugas.)

Describe frambœsia.

Frambœsia is an endemic, contagious disease met with in tropical countries, characterized by the appearance of variously-sized papules, tubercles, and tumors, which, when developed, resemble currants and small raspberries, and finally break down and ulcerate. It is accompanied by constitutional symptoms of variable severity.

Hygienic measures, good food, tonics, and antiseptic and stimulating applications are curative.

Equinia.

(*Synonyms:* Farcy; Glanders.)

What is equinia, or glanders?

A rare contagious specific disease of a malignant type, derived from the horse, and characterized by grave constitutional symptoms, inflammation of the nasal and respiratory passages, and a deep-seated papulo-pustular, or tubercular, nodular (*farcy buds*), ulcerative eruption. A fatal issue is not uncommon. It is due to a micro-organism.

Treatment, both local and constitutional, is based upon general principles.

Miliaria.

(*Synonyms:* Prickly Heat; Heat Rash.)

What do you understand by miliaria?

Miliaria is an acute inflammatory disorder of the sweat-glands, characterized by the appearance of minute, discrete but closely crowded papules, vesico-papules and vesicles.

Describe the symptoms of miliaria.

The eruption, consisting of pin-point to millet-seed-sized papules, vesico-papules, vesicles, or a mixture of these lesions, discrete but usually numerous and closely crowded, appears suddenly; occurring upon a limited portion of the surface, or, as commonly observed,

involving a greater part or the whole integument. The trunk is a favorite locality. The papular lesions are pinkish or reddish, and the vesicles whitish or yellowish, surrounded by inflammatory areola, thus giving the whole eruption a bright-red appearance—*miliaria rubra*. Later, the areolæ fade, the transparent contents of the vesicles become somewhat opaque and yellowish-white, and the eruption has a whitish or yellowish cast—*miliaria alba*.

Itching, or a feeling of burning, slight or intense, is usually present.

What is the course of the eruption?

The vesicles show no disposition to rupture, but dry up in a few days or a week, disappearing by absorption and with slight subsequent desquamation; the papular lesions gradually fade away, and the affection, if the exciting cause has ceased to act, terminates.

What is the cause of miliaria?

Excessive heat. Debilitated individuals, especially children, are more prone to an attack.

What is the nature of the disease?

The affection is essentially an inflammatory disorder of the sweat-glands, congestion and exudation taking place about the ducts, giving rise to papules or vesicles, according to the intensity of the process.

How would you distinguish miliaria from papular and vesicular eczema, and from sudamen?

The papules of eczema are larger, more elevated, firmer, slower in their evolution, of longer duration, and are markedly itchy.

The vesicles of eczema are usually larger, tend to become confluent, and also to rupture and become crusted; there is marked itchiness, and the inflammatory action is usually severe and persistent.

In sudamen there is absence of inflammatory symptoms.

What is the prognosis of miliaria?

The affection, under favorable circumstances, disappears in a few days or weeks. If the cause persists, as for instance, in infants or young children too warmly clad, it may result in eczema.

What is the treatment of miliaria?

Removal of the cause, and in debilitated subjects the administration of tonics; together with the application of cooling and astringent lotions, as the following:—

℞. Acidi carbolici, ... ℥ss–℥iij
Acidi borici, ... ℥iv
Glycerinæ, ... f℥j
Alcoholis, ... f℥ij
Aquæ, ... ℥xiv. M.

Lotions of alcohol and water, or vinegar and water, and dusting powder of starch, lycopodium and talc are often employed, with relief.

Pompholyx.

(*Synonyms:* Dysidrosis; Cheiro-pompholyx.)

What is pompholyx?

Pompholyx is a rare disease of the skin of a vesicular and bullous character, and limited to the hands and feet.

Describe the symptoms of pompholyx.

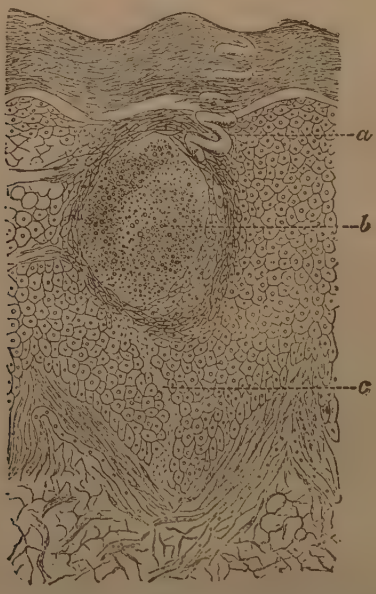
In most instances the hands only are affected. It begins usually with a feeling of burning, tingling or tenderness of the parts, followed rapidly by the appearance of deeply-seated vesicles, especially between the fingers and on the palmar aspect. These beginning lesions look not unlike sago grains imbedded in the skin. In some instances the disease does not extend beyond this stage, the vesicles disappearing after a few days or weeks by absorption, and usually without desquamation. Ordinarily, however, the lesions increase in size, new ones arise, become confluent, and blebs result, the skin in places appearing as if undermined with serous exudation. The parts are commonly inflamed to a slight or marked degree. The skin comes off in flakes, new lesions may appear for several days or two or three weeks, and the process then declines, recovery gradually taking place.

There are no constitutional symptoms, although it is usually noticed that the general health is below par.

What is the character of the subjective symptoms in pompholyx?

The subjective symptoms consist of a feeling of tension, burning and tenderness, and sometimes itching. Not infrequently, also, there is neuralgic pain.

FIG. 12.



Pompholyx × 110. (*After Crocker.*)
b, Vesicle formed in the inter-papillary portion of the rete directly in the course of the sweat channel *a* and *c*.

What is the cause of pompholyx?

The eruption is thought to be due to a depressed state of the nervous system. It is more common in women, and is met with chiefly in adult and middle life.

What is the pathology?

Opinion is divided; some considering it a disease of the sweat-

glands and others an inflammatory disease independent of these structures.

State the diagnostic features of pompholyx.

The distribution and the peculiar characters and course of the eruption.

It is to be differentiated from eczema and pemphigus.

What is the prognosis?

For the immediate attack, favorable, recovery taking place in several weeks or a few months. Recurrences at irregular intervals are not uncommon.

What is the treatment of pompholyx?

The general health is to be looked after, and the patient placed under good hygienic conditions. Remedies of a tonic nature, directed especially toward improving the state of the nervous system, are to be prescribed. *Locally*, soothing and anodyne applications, such as lead-water and laudanum, boric acid lotion, oxide of zinc, boric acid and diachylon ointments, are most suitable; or the parts may be enveloped with the following:—

℞. Pulv. ac. salicylici, ... gr. x
Pulv. ac. borici,
Pulv. amyli, ... aa . . . . . ʒij
Petrolati, ... ʒiv. M.

In fact, the external treatment is similar to that employed in acute eczema.

Herpes Simplex.

(*Synonym:* Fever Blisters.)

What is herpes simplex?

An acute inflammatory disease, characterized by the formation of pin-head to pea-sized vesicles, arranged in groups, and occurring for the most part about the face and genitalia.

Describe the symptoms of herpes simplex.

In severe cases, malaise and pyrexia may precede the eruption, but

usually it appears without any precursory or constitutional symptoms. A feeling of heat and burning in the parts is often complained of. The vesicles, which are commonly pin-head in size, are usually upon a hyperæmic or inflammatory base, and tend to occur in groups or clusters. Their contents are usually clear, subsequently becoming more or less milky or puriform. There is no tendency to spontaneous rupture, but should they be broken a superficial excoriation results. In a short time they dry to crusts which soon fall off, leaving no permanent trace.

Is the eruption in herpes simplex abundant?

No. As a rule not more than one or two clusters or groups are observed.

Upon what parts does the eruption occur?

Usually about the face (*herpes facialis*), and most frequently about the lips (*herpes labialis*); on the genitalia (*herpes progenitalis*), the lesions are commonly found on the prepuce (*herpes præputialis*) in the male, and on the labia minora and labia majora in the female.

State the causes of herpes simplex.

Herpes facialis is often observed in association with febrile and lung diseases. Malaria, digestive disturbance, and nervous disorders are not infrequently predisposing factors. Herpes progenitalis is said to occur more frequently in those who have previously had some venereal disease, especially gonorrhœa, but this is questionable. It is probably often purely neurotic.

What are the diagnostic points?

The appearance of one or several vesicular groups or clusters about the face, and especially about the lips, is usually sufficiently characteristic. The same holds true ordinarily when the eruption is seen on the prepuce or other parts of the genitalia; it is only when the vesicles become rubbed or abraded and irritated that it might be mistaken for a venereal sore, but the history, course and duration will usually serve to differentiate.

Give the prognosis.

The eruption will usually disappear in several days or one or two weeks without treatment. Remedial applications, however, exert

a favorable influence. Herpes progenitalis exhibits a strong disposition to recurrence.

What is the treatment of herpes facialis?

Anointing the parts with camphorated cold cream, with spirits of camphor or similar evaporating and stimulating applications will at times afford relief to the burning, and shorten the course.

What is the treatment of herpes progenitalis?

In herpes about the genitalia cleanliness is of first importance. A saturated solution of boric acid, a dusting-powder of calomel or oxide of zinc, and the following lotion, containing calamine and oxide of zinc, are valuable:—

℞. Zinci oxidi,
Calaminæ, ... āā . . . . . gr. v
Glycerinæ,
Alcoholis, ... āā . . . . . ♏vj
Aquæ, ... ℥j M.

In obstinately recurrent cases, frequent applications of a mild galvanic current will have a favorable influence.

Herpes Zoster.

(*Synonyms:* Zoster; Zona; Shingles.)

Give a definition of herpes zoster.

Herpes zoster is an acute, self-limited, inflammatory disease, characterized by groups of vesicles upon inflammatory bases, situated over or along a nerve tract.

Upon what parts of the body may the eruption appear?

It may appear upon any part, following the course of a nerve; it is therefore always limited in extent, and confined to one side of the body. It is probably most common about the intercostal, lumbar and supra-orbital regions.

Are there any subjective or constitutional symptoms in herpes zoster?

Yes; there is, as a rule, neuralgic pain preceding, during, and

following the eruption; and in some cases, also, there may be in the beginning mild febrile disturbance. There is also a variable degree of tenderness and pain.

What are the characters of the eruption?

Several or more hyperæmic or inflammatory patches over a nerve course appear, upon which are seated vesico-papules irregularly grouped; these vesico-papules become distinct vesicles, of size from a pin-head to a pea, and soon dry and give rise to thin, yellowish or brownish crusts, which drop off, leaving in most instances no permanent trace, in others more or less scarring. In some cases the lesions may become pustular and, on the other hand, the eruption may be abortive, stopping short of full vesiculation.

What is known in regard to the nature of the disease?

An inflamed and irritable state of the spinal ganglia, nerve tract, or peripheral branches is directly responsible for the eruption, and this state may be due to atmospheric changes, cold, nerve injuries and similar influences.

Give the chief diagnostic features of herpes zoster.

The prodromic neuralgic pain, the appearance of grouped vesicles upon inflammatory bases following the course of a nerve tract, and the limitation of the eruption to one side of the body.

What is the prognosis?

Favorable; the symptoms usually disappearing in two to four weeks. In some instances, however, the neuralgic pains may be persistent, and in zoster of the supra-orbital region the eye may suffer permanent damage.

How would you treat herpes zoster?

Constitutional treatment, if any is called for, is to be based upon general principles. Tonics, large doses of quinia, and the phosphide of zinc in one-fourth-grain dose every three hours, sometimes prove of advantage.

Local treatment should be of a soothing and protective character. A dusting powder of oxide of zinc and starch (to the ounce of which twenty to thirty grains of camphor may be added) proves useful; and over this, in order that the parts be further protected, a bandage or a layer of cotton batting. Oxide of zinc ointment,

and in those cases in which there is much pain, ointments containing powdered opium or belladonna, may be used. A mild galvanic current applied daily to the parts is often of great advantage, both in its influence upon the course of the eruption and upon the neuralgic pain.

Herpes Iris.

What do you understand by herpes iris?

Herpes iris is an acute inflammatory disease characterized by one or more groups of vesicles or blebs arranged usually in the form of more or less complete concentric rings, the whole efflorescence being somewhat variegated in color.

Describe the symptoms of herpes iris.

A patch of herpes iris usually begins as a simple vesicle or papule; this partly disappears, while around the periphery a ring of discrete or confluent vesicles makes its appearance; the process may stop here, or one, two or more such rings may be added. Several or more patches are usually present, and when fully formed present variegated colors due to the difference in age of the individual rings making up the eruption; new patches may continue to appear one or two weeks, or longer, and the disease come to an end, the lesions drying to crusts, which, falling off, leave transitory redness and pigmentation.

The subjective symptoms, of heat, burning, and sometimes itching, are rarely troublesome.

Upon what parts of the body is the eruption commonly observed?

Upon the backs of the hands and forearms; it may, however, be seen upon other parts, more especially the legs and feet.

Are blebs ever produced in herpes iris?

Yes. In exceptional instances the inflammatory action is sufficiently severe to give rise to bleb formation.

What is the nature of the disease?

It is closely allied, in its cause, distribution and course, to erythema multiforme, and may indeed be looked upon as a modification or advanced stage of that disease. It is somewhat rare.

May herpes iris be confounded with other diseases?

It might possibly bear resemblance to ringworm, herpes zoster and pemphigus, but its characters, mode of formation, distribution and cause are different, and will serve to prevent error.

What prognosis is to be given in herpes iris?

Favorable. The disease, while at times markedly inflammatory, usually subsides at the end of one to three weeks. One or more recurrences, usually at yearly intervals, are not uncommon.

What treatment is to be advised?

Constitutional treatment is rarely required; salines, quinine and tonics may be prescribed if indicated.

Locally, soothing and protective applications should be made; oxide of zinc ointment, calamine lotion as prescribed in eczema (*q. v.*), cold cream or the like may be used for this purpose.

Dermatitis Herpetiformis.

(*Synonyms:* Hydroa; Herpes Gestationis; Pemphigus Pruriginosus; Duhring's Disease.)

Give a definition of dermatitis herpetiformis.

Dermatitis herpetiformis is a somewhat rare inflammatory disease, characterized by an eruption of an erythematous, papular, vesicular, pustular, bullous or mixed type, with a decided disposition toward grouping, accompanied by itching and burning sensations, and pursuing usually a chronic course with remissions.

Describe the erythematous type of dermatitis herpetiformis.

The character of the eruption in the erythematous type resembles closely that of erythema multiforme and of urticaria, especially the former. The efflorescences usually make their appearance in crops, and are more or less persistent; fading sooner or later, however, and giving place to new outbreaks. Vesicles are often intermingled, developing from erythematous and erythemato-papular lesions or arising from apparently normal skin.

It may continue in the same type, or change to the vesicular, bullous or other variety.

Describe the papular type of dermatitis herpetiformis.

This is rarely seen as consisting purely of papular lesions, but is commonly associated with the erythematous and vesicular varieties. In a measure it resembles the papular manifestations of erythema multiforme, with a distinct disposition toward group formation. The papules tend, sooner or later, to develop into vesicles, new papular outbreaks occurring from time to time; or the whole eruption changes to the vesicular or other type of the disease. It is not a common type.

Describe the vesicular type of dermatitis herpetiformis.

This is the common clinical type of the disease, and is characterized by pin-head to pea-sized, rounded or irregularly-shaped, distended or flattened and stellate vesicles, occurring, for the most part, in irregular and segmental groups of three or more lesions, seated either upon apparently normal integument or upon hyperæmic or inflammatory skin. They exhibit no tendency to spontaneous rupture, but after remaining a shorter or longer time, are broken or disappear by absorption. The lesions tend to appear in crops. It may, as it not infrequently does, continue in the same type, or it may become more or less erythematous or bullous in character. In not a few instances pustules, few or in numbers, are at times intermingled.

Describe the pustular type of dermatitis herpetiformis.

This is rare. It is similar in its clinical characters to the vesicular type, except that the lesions are pustular. It is met with, as a rule, in association with the vesicular and bullous varieties of the disease.

Describe the bullous type of dermatitis herpetiformis.

The bullous expression of the disease is usually of a markedly inflammatory nature, often innumerable blebs, small and large, appearing almost continuously, and in some instances involving the greater part of the surface. The lesions arise from erythematous skin, from preëxisting vesicles or vesicular groups, or from apparently normal integument. There is a marked disposition to appear in clusters. A change of type to the erythematous or vesicular varieties is not unusual.

Describe the mixed type of dermatitis herpetiformis.

In this type the eruption is made up of erythematous patches,

vesicles, bullæ, and often with pustules intermingled, appearing irregularly or in crops, and with a tendency to patch or group formation.

Describe the characters of the vesicles, pustules and blebs.

As a rule, these several lesions, especially the vesicles and blebs, are somewhat peculiar: they are usually of a strikingly irregular outline, oblong, stellate, quadrate, and when drying are apt to have a puckered appearance. They are herpetic in that they show little disposition to spontaneous rupture, occur in groups, and are usually seated upon erythematous or inflammatory skin—in some respects similar to the groups of simple herpes and herpes zoster.

What is to be said in regard to the subjective symptoms?

The subjective symptoms are usually the most troublesome feature of the disease, consisting of intense and persistent itching and a feeling of heat and burning.

Are there any constitutional symptoms in dermatitis herpetiformis?

As a rule, not, excepting the distress and depression necessarily consequent upon the intense itchiness and loss of sleep. In the pustular and bullous varieties there may be mild or grave systemic symptoms, but even in these types the constitutional involvement is, in most instances, slight in comparison to the intensity of the cutaneous disturbance.

What is the course of dermatitis herpetiformis?

Extremely chronic, in most instances lasting, with remissions, indefinitely. The skin is rarely entirely free. From time to time the type of the disease may undergo change. From the continued irritation and scratching more or less pigmentation results.

What is to be said in regard to the etiology of dermatitis herpetiformis?

The disease is in many instances essentially neurotic, and in exceptional instances septicæmic. In other cases no cause can be assigned. In the majority of patients the general health, considering the violence of the eruptive phenomena, remains comparatively undisturbed.

Mention the diagnostic features of dermatitis herpetiformis.

The multiformity of the eruption, the characters of the lesions, the disposition to grouping, the absence of tendency to form solid sheets of eruption (as in eczema), the intense itching, history, chronicity and course. In doubtful cases, an observation of several weeks will always suffice to distinguish it from eczema, erythema multiforme, herpes iris and pemphigus, diseases to which it at times bears strong resemblance.

Give the prognosis of dermatitis herpetiformis.

An opinion as to the outcome of the disease should be guarded. It is exceedingly rebellious to treatment, and relapses are the rule. Exceptionally the bullous and pustular varieties prove eventually fatal.

State the treatment to be advised.

There are no special remedies. Constitutional treatment must be conducted upon general principles. Externally protective and anti-pruritic applications, such as are employed in the treatment of eczema and pemphigus, are to be employed :—

℞.	Thymol, ...	gr. xvj–gr. 1	
	Glycerinæ, ...	ʒ ij.	
	Alcoholis, ...	f ʒ ij	
	Aquæ, q. s., ... ad	Oj.	M.

Other valuable applications are : lotions of carbolic acid, of liquor carbonis detergens, of boric acid; alkaline baths, mild sulphur ointment and carbolized oxide-of-zinc ointment, and dusting powders of starch, zinc oxide, talc and boric acid.

Psoriasis.

Give a definition of psoriasis.

Psoriasis is a chronic, inflammatory disease, characterized by dry, reddish, variously-sized, rounded, sharply defined, more or less infiltrated, scaly patches.

At what age does psoriasis usually first make its appearance ?

Most commonly between the ages of fifteen and thirty. It is

rarely seen before the tenth year, and a first attack is uncommon after the age of forty.

Has psoriasis any special parts of predilection?

The extensor surfaces of the limbs, especially the elbows and knees, are favorite localities, and even when the eruption is more or less general, these regions are usually most conspicuously involved. The face often escapes, and the palms and soles, likewise the nails, are rarely involved. In exceptional instances, the eruption is limited almost exclusively to the scalp.

Are there any constitutional or subjective symptoms in psoriasis?

There is no systemic disturbance; but a variable amount of itching may be present, although, as a rule, it is not a troublesome symptom.

Describe the clinical appearances of a typical, well developed case.

Twenty or a hundred or more lesions, varying in size from a pinhead to a silver dollar, are usually present. They are sharply defined against the sound skin, are reddish, slightly elevated and infiltrated, and more or less abundantly covered with whitish, grayish or mother-of-pearl colored scales. The patches are usually scattered over the general surface, but are frequently more numerous on the extensor surfaces of the arms and legs, especially about the elbows and knees. Several closely-lying lesions may coalesce and a large, irregular patch be formed; some of the patches, also, may be more or less circinate, the central portion having, in a measure or completely, disappeared.

Give the development and history of a single lesion.

Every single patch of psoriasis begins as a pin-point or pin-head-sized, hyperæmic, scaly, slightly elevated lesion; it increases gradually, and in the course of several days or weeks usually reaches the size of a dime or larger, and then may remain stationary; or involution begins to take place, usually by a disappearance, partially or completely, of the central portion, and finally of the whole patch.

Describe the so-called clinical varieties of psoriasis.

As clinically met with, the patches present are, as a rule, in all

stages of development. In some instances, however, the lesions, or the most of them, progress no further than pin-head in size, and then remain stationary, constituting *psoriasis punctata;* in other cases, they may stop short after having reached the size of drops—*psoriasis guttata;* in others (and this is the usual clinical type) the patches develop to the size of coins—*psoriasis nummularis.* In some cases there is a strong tendency for the central part of the lesions to disappear, and the process then remain stationary, the patches being ring-shaped—*psoriasis circinata;* and occasionally several such rings coalesce, the coalescing portions disappearing and the eruption be more or less serpentine—*psoriasis gyrata.* Or, in other instances, several large contiguous lesions may coalesce and a diffused, infiltrated patch covering considerable surface results—*psoriasis diffusa, psoriasis inveterata.*

Is the eruption of psoriasis always dry?

Yes.

What course does psoriasis pursue?

As a rule, eminently chronic. Patches may remain almost indefinitely, or may gradually disappear and new lesions appear elsewhere, and so the disease may continue for months and, sometimes, for years; or, after continuing for a longer or shorter period, may subside and the skin remain free for several months or one or two years, and, in rare instances, may never return.

Is the course of psoriasis influenced by the seasons?

As a rule, yes; there is a natural tendency for the disease to become less active or to disappear altogether during the warm months.

What is known in regard to the etiology of psoriasis?

The causes of the disease are always more or less obscure. There is often a hereditary tendency, and the gouty and rheumatic diathesis must occasionally be considered potential. In some instances it is apparently influenced by the state of the general health. It is a rather common disease and is met with in all walks of life.

Is psoriasis contagious?

No.

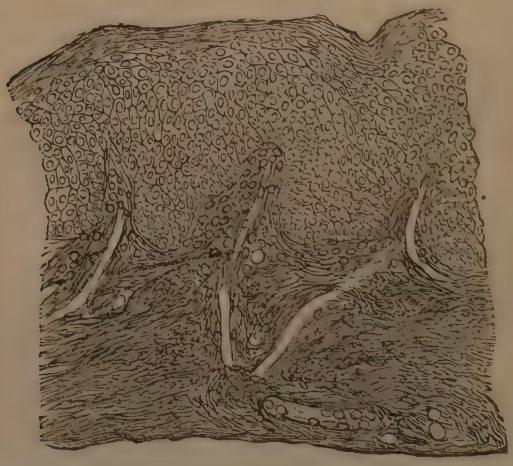
What is the pathology?

According to modern investigations, it is an inflammation induced by hyperplasia of the rete mucosum.

With what diseases are you likely to confound psoriasis?

Chiefly with squamous eczema and the papulo-squamous syphiloderm; and on the scalp, also with seborrhœa.

FIG. 13.



Vertical section of a psoriasis papule of a few days' duration; showing marked increase of the rete mucosum, especially the interpapillary portion. (*After Robinson.*)

How is psoriasis to be distinguished from squamous eczema?

By the sharply-defined, circumscribed, scattered, scaly patches, and by the history and course of the individual lesions.

In what respects does the papulo-squamous syphiloderm differ from psoriasis?

The scales of the squamous syphilide are usually dirty gray in color and more or less scanty; the patches are coppery in hue, and usually several or more characteristic scaleless, infiltrated papules are to be found. The face, palms and soles are often the seat of the

syphilitic eruption ; and, moreover, *concomitant symptoms of syphilis*, such as sore throat, mucous patches, glandular enlargement, rheumatic pains, falling of the hair, together with the history of the initial lesion, are one, several or all usually present.

FIG. 14.

Vertical section of skin from a patch of psoriasis of long standing. (*After Jamieson.*)
MP, Malpighian (rete mucosum) prolongation ; C, corium ; L, leucocytes.

How does seborrhœa of the scalp differ from psoriasis?

Seborrhœa is usually diffused, with no redness and infiltration ; moreover, the scales of seborrhœa are greasy, dirty gray or brown-

ish, while those of psoriasis are dry and commonly whitish or mother-of-pearl colored. Psoriasis of the scalp rarely exists independently of other patches elsewhere on the general surface.

Give the prognosis of psoriasis.

The prognosis is usually favorable, so far as concerns the immediate eruption, but as to recurrences, nothing positive can be stated. In some instances, however, the cure remains permanent.

How is psoriasis treated?

Both constitutional and local remedies are demanded in most cases.

Do dietary measures exert any influence?

As a rule, no; but the food should be plain, and an excess of meat avoided.

Name the important constitutional remedies usually employed in psoriasis.

Arsenic is of first importance. It is not suitable in acute or markedly inflammatory types; but is most useful in the sluggish, chronic forms of the disease. The dose should never be pushed beyond slight physiological action. It may be given as arsenious acid in pill form, one-fiftieth to one-tenth of a grain three times daily, or as Fowler's solution, three to ten minims at a dose.

Alkalies, of which liquor potassæ is the most eligible. It is to be given in ten to twenty minim doses, largely diluted. It is valuable in robust, plethoric, rheumatic or gouty individuals with psoriasis of an acute or markedly inflammatory type; it is not to be given to debilitated or anæmic subjects.

Potassium Iodide, in doses of ten to sixty grains, t. d., acts favorably in some instances; there are no special indications pointing toward its selection, unless it be the existence of a gouty or rheumatic diathesis.

Copaiba (and also other diuretics) is valuable in some instances, and while often failing, sometimes exerts a rapid influence, especially in those cases in which the disease is extensive and inflammatory. It is given in ten to thirty minim doses, three times daily.

Are such remedies as iron, quinine, nux vomica and similar tonics ever useful in psoriasis?

Yes. In debilitated subjects the administration of such remedies is at times attended with improvement in the cutaneous eruption.

What are the indications as regards the external measures?

Removal of the scales, and the use of soothing or stimulating applications, according to the individual case.

How are the scales removed?

In ordinary cases, either by warm, plain, or alkaline baths, or hot-water-and-soap washings; in those cases in which the scaling is abundant and adherent, washing with sapo viridis and hot water may be required. The tincture of green soap (tinctura saponis viridis) may also be used, and is especially valuable for cleansing purposes in psoriasis of the scalp.

The frequency of the baths or washings will depend upon the rapidity with which the scales are reproduced.

Are soothing applications often demanded in psoriasis?

In exceptional cases; in those in which the disease is acute, markedly inflammatory and rapidly progressing, mild, soothing applications must be temporarily employed, such as plain or bran baths, with the use of some bland oil or ointment. As a rule, however, the conditions, when coming under observation, are such as to permit of stimulating applications from the start.

How are the stimulating remedies employed in psoriasis applied?

As ointments, oils, and paints (pigmenta).

An ointment, if employed, is to be thoroughly rubbed in the diseased areas once or twice daily. The same may be said of the oily applications. The paints (medicated collodion and gutta-percha solution) are applied with a brush, once daily, or every second or third day, depending mainly upon the length of time the film remains intact and adherent.

Name the several important external remedies.

Chrysarobin, pyrogallic acid, tar, ammoniated mercury, β-naphthol and resorcin.

Are these several external remedies equally serviceable in all cases?

No. Their action differs slightly or greatly according to the case and individual. A change from one to another is often necessary.

In what forms and strength are these remedies to be applied?

Chrysarobin is applied in several ways: as an ointment, twenty to sixty grains to the ounce, rubbed in once or twice daily; this is the most rapid but least cleanly and eligible method. As a pigment, or paint, as in the following:—

℞.	Chrysarobini,	ʒj	
	Acidi salicylici,	gr. xx	
	Etheris,	fʒj	
	Ol. ricini,	♏x	
	Collodii,	fʒvij.	M.

Or it may be used in liquor gutta-perchæ (traumaticin), a drachm to the ounce. It may also be employed in chloroform, a drachm to the ounce; this is painted on, the chloroform evaporating, leaving a thin film of chrysarobin; over this is painted flexible collodion. If the patches are few and large, chrysarobin rubber-plaster may be used.

Chrysarobin is usually rapid in its effect, but it has certain disadvantages; it may cause an inflammation of the surrounding skin, and, if used near the eyes, may give rise to conjunctivitis. As a rule, it should not be employed about the head. Moreover, it stains the linen permanently and the skin temporarily.

Pyrogallic acid is also valuable, and is employed in the same manner and strength as chrysarobin. It is less rapid than that remedy, but it rarely inflames the surrounding integument. It stains the linen a light brown, however, and is not to be used over an extensive surface for fear of absorption and toxic effect.

Tar is, all things considered, the most important external remedy. It is comparatively slow in its action, but is useful in almost all cases. As employed usually it is prescribed in ointment form, either as the officinal tar ointment, full strength, or weakened with lard or petrolatum. It may also be used as pix liquida, with equal part of alcohol. Or the tar oils, oil of cade (ol. cadini), and oil of birch (ol.

ruscі) may be employed, either as oily applications or incorporated with ointment or with alcohol. In whatsoever form tar is employed it should be thoroughly rubbed in, once or twice daily, the excess wiped off, and the parts then dusted with starch or similar powder.

Ammoniated mercury is applied in ointment form, twenty to sixty grains to the ounce. Compared to other remedies it is clean and free from staining, although, as a rule, not so uniformly efficacious. It is especially useful for application to the scalp and exposed parts.

β-Naphthol and *resorcin* are applied as ointments, thirty to sixty grains to the ounce, and as they are (especially the former) practically free from staining, may be used for exposed surfaces.

Pityriasis Rosea.

(*Synonym :* Pityriasis Maculata et Circinata.)

What do you understand by pityriasis rosea ?

Pityriasis rosea is a disease of a mildly inflammatory nature, characterized by discrete or confluent, pinkish or rosy-red, variously-sized, slightly raised scaly macules.

Upon what part of the body is the eruption usually found ?

The trunk is the chief seat of the eruption, although not infrequently it is more or less general.

Describe the symptoms of pityriasis rosea.

The lesions, which appear rapidly or slowly, are but slightly elevated, somewhat scaly, usually rounded, except when several coalesce, when an irregularly outlined patch results. At first they are pale or bright pink or reddish, later a salmon tint (which is often characteristic) is noticed. The scaliness is bran-like or flaky, of a dirty gray color, and, as a rule, less marked in the central portion ; it is never abundant. The skin is rarely thickened, the process being usually exceedingly superficial.

What course does pityriasis rosea pursue ?

The eruption makes its appearance, as a rule, somewhat rapidly, usually attaining its full development in the course of one or two weeks, and then begins gradually to decline, the whole process occupying one or two months.

To what is pityriasis rosea to be attributed?

The cause is not known; it is variously considered as allied to seborrhœa (eczema seborrhoicum), as being of a vegetable-parasitic origin, and as a mildly inflammatory affection somewhat similar to psoriasis. It is not a frequent disease.

How is pityriasis rosea distinguished from ringworm, psoriasis and the squamous syphiloderm?

From ringworm, by its rapid appearance, its distribution, the number of patches, and, if necessary, by microscopic examination of the scrapings.

Psoriasis is a more inflammatory disease, is seen usually more abundantly upon the limbs, the scales are profuse and silvery, and the underlying skin is red and has a glazed look; moreover, psoriasis, as a rule, appears slowly and runs a chronic course.

The squamous syphiloderm differs in its history, distribution, and above all, by the presence of concomitant symptoms of syphilis, such as glandular enlargement, sore throat, mucous patches, rheumatic pains, and falling of the hair.

State the prognosis of pityriasis rosea.

It is favorable, the disease tending to spontaneous disappearance, usually in the course of several weeks or one or two months.

What treatment is to be advised in pityriasis rosea?

Treatment is rarely required. In severe cases, simple ointments or ointments containing a half to one drachm of precipitated sulphur to the ounce of lard or petrolatum may be used. Saline laxatives, and, if indicated, quinine and tonics, may also be prescribed.

Dermatitis Exfoliativa.

(*Synonyms:* General Exfoliative Dermatitis; Recurrent Exfoliative Dermatitis; Desquamative Scarlatiniform Erythema; Acute General Dermatitis; Recurrent Exfoliative Erythema.)

Describe dermatitis exfoliativa.

Dermatitis exfoliativa is an inflammatory disease of an acute type, characterized by a more or less general erythematous inflammation, in exceptional instances vesicular or bullous, with epidermic desqua-

mation or exfoliation accompanying or following its development. Constitutional disturbance, which may be of a serious character, is usually present. It is a rare and obscure affection, running its course usually in several weeks or months, but exhibiting a decided tendency to relapse and recurrence.

Give the treatment of dermatitis exfoliativa.

General treatment is based upon indications, and externally soothing applications, such as are employed in acute and subacute eczema, are to be used.

Pityriasis Rubra.

What is pityriasis rubra?

Pityriasis rubra is an inflammatory disease, characterized by hyperæmia and abundant and continuous epidermic exfoliation.

Describe its symptoms, course, nature and treatment.

Making its appearance as one or more small, red, scaly patches, it is not long before the whole or greater portion of the body is involved. The skin is pale or violaceous red, but is rarely thickened, continued exfoliation in the form of thin flakes taking place. The subjective symptoms of burning and itching are usually slight; constitutional symptoms may or may not be present in the beginning, but later, chilliness, febrile disturbance, and general depression usually ensue, and death may finally result. The course of the disease is variable, lasting for years, with remissions. It is extremely rare, and almost unknown in this country. Its nature is obscure.

General treatment should be tonic in character. Locally, mild and soothing applications, such as cold cream, oxide-of-zinc ointment and petrolatum are to be employed.

Lichen Ruber.

What is lichen ruber?

Lichen ruber is an inflammatory disease characterized by small, flat and angular, or acuminated, smooth and shining, or scaly, discrete or confluent, red or violaceous red papules, having a distinctly

papular or papulo-squamous course, and attended with more or less itching.

What two varieties of lichen ruber are met with?

The acuminate (*lichen ruber acuminatus*, *lichen ruber*) and the plane (*lichen ruber planus*, *lichen planus*). The former is extremely rare; the latter, while not frequent, is not uncommon. The pathological identity of these varieties is at present questioned.

Describe the symptoms of lichen ruber acuminatus.

The acuminate variety is characterized by the appearance of small, pin-point or pin-head, pointed or rounded, reddish, scaly, disseminated or closely crowded, solid papules, showing no disposition to group; spreading rapidly, pursuing a chronic course, and attended with more or less serious involvement of the general health, with, sometimes, a fatal termination.

Describe the symptoms of lichen ruber planus.

The plane variety, as a rule, begins slowly, usually showing itself upon the extremities; the forearms, wrists and legs being favorite localities. It may appear as one or more groups or in the form of short or long bands. Occasionally its evolution is rapid, and a considerable part of the surface may be invaded. The lesions are pin-head to small pea-sized, irregularly grouped or so closely crowded together as to form solid patches; they are quadrangular or polygonal in shape, usually flat, with central depression or umbilication, and are reddish or violaceous in color. At first they have a glazed or shining appearance; later, becoming slightly scaly, the scaliness being more marked where solid patches have resulted. New papules may appear from time to time, the older lesions disappearing and leaving persistent reddish or brownish pigmentation. There is, as a rule, considerable itching. There are no constitutional symptoms.

What is the etiology of lichen ruber?

In some cases the disease is distinctly neurotic in character, in others no cause can be assigned. It is more especially met with at middle age.

Does the disease bear any resemblance to the miliary papular syphilide, psoriasis, and papular eczema?

In some instances, but the irregular and angular outline, the

slightly umbilicated, flattened, smooth or scaly summits, and the dull-red or violaceous color, the history and course, of lichen ruber planus, will serve to differentiate. Lichen ruber acuminatus can scarcely be confounded, if its clinical appearances, history and course are kept in mind.

State the prognosis.

Under proper management both varieties, although often obstinate, yield to treatment.

What treatment would you prescribe in lichen ruber?

A general tonic plan of medication is indicated in most cases, with such remedies as iron, quinine, nux vomica, and cod-liver oil and other nutrients. In some instances, especially in the acuminate variety, arsenic has a special influence. Locally, antipruritic and stimulating applications, such as are used in the treatment of eczema, are to be employed, alkaline baths and tarry applications deserving special mention. In the plane variety, particularly if the disease is limited, external applications alone often suffice to bring about a cure.

Lichen Scrofulosus.

Describe lichen scrofulosus.

Lichen scrofulosus is a chronic, inflammatory disease, characterized by millet-seed-sized, rounded or flat, reddish or yellowish, more or less grouped, desquamating papules. The lesions have their start about the hair-follicles, occur usually upon the trunk, tend to group and form patches, and sooner or later become covered with minute scales. As a rule, there is no itching. It is a rare disease, scarcely, if at all, met with in this country; it is seen chiefly in children and young people of a scrofulous diathesis. Scarring, slight in character, may or may not follow.

What is the treatment of lichen scrofulosus?

The condition responds to tonics and anti-strumous remedies.

Eczema.

(*Synonym:* Tetter.)

What is eczema?

An acute, subacute or chronic inflammatory disease, characterized in the beginning by the appearance of erythema, papules, vesicles or pustules, or a combination of these lesions, with a variable amount of infiltration and thickening, terminating either in discharge with the formation of crusts, in absorption, or in desquamation, and accompanied by more or less intense itching and a feeling of heat or burning.

What are the several primary types of eczema?

Erythematous, papular, vesicular and pustular; all cases begin as one or more of these types, but not infrequently lose these characters and develop into the common clinical or secondary types—eczema rubrum and eczema squamosum.

What other types are met with clinically?

Eczema rubrum, eczema squamosum, eczema fissum, eczema sclerosum and eczema verrucosum.

Describe the symptoms of erythematous eczema.

Erythematous eczema (*eczema erythematosum*) begins as one or more small or large, irregularly outlined hyperæmic macules or patches, with or without slight or marked swelling, and with more or less itching or burning. At first it may be ill-defined, but it tends to spread and its features to become more pronounced. It may be limited to a certain region, or it may be more or less general. When fully developed, the skin is harsh and dry, of a mottled, reddish or violaceous color, thickened, infiltrated and usually slightly scaly, with, at times, a tendency toward the formation of oozing areas. Punctate and linear scratch-marks may usually be seen scattered over the affected region.

Its most common site is the face, but it is not infrequent upon other parts.

What course does erythematous eczema pursue?

It tends to chronicity, continuing as the erythematous form, or the skin may become considerably thickened and markedly scaly,

constituting eczema squamosum; or a moist oozing surface, with more or less crusting, may take its place—eczema rubrum.

Describe the symptoms of papular eczema.

Papular eczema (*eczema papulosum*) is characterized by the appearance, usually in numbers, of discrete, aggregated or closely-crowded, reddish, pin-head-sized acuminated or rounded papules. Vesicles and vesico-papules are often intermingled. The itching is commonly intense, as often attested by the presence of scratch-marks and blood crusts.

It is seen most frequently upon the extremities, especially the flexor surfaces.

What course does papular eczema pursue?

The lesions tend, sooner or later, to disappear, but are usually replaced by others, the disease thus persisting for weeks or months; in places where closely crowded, a solid, thickened, scaly sheet of eruption may result—eczema squamosum.

Describe the symptoms of vesicular eczema.

Vesicular eczema (*eczema vesiculosum*) usually appears, on one or several regions, as more or less diffused inflammatory reddened patches, upon which rapidly develop numerous closely-crowded pin-point to pin-head-sized vesicles, which may become confluent and form a solid sheet of eruption. The vesicles soon mature and rupture, the discharge drying to yellowish, honeycomb-like crusts. The oozing is usually more or less continuous, or the disease may decline, the crusts be cast off, to be quickly followed by a new crop of vesicles. In those cases in which the process is markedly acute, considerable swelling and œdema are present. Scattered papules, vesico-papules and pustules may usually be seen upon the involved area or about the border.

The face in infants (*crusta lactea*, or *milk crust*, of older writers), the neck, flexor surfaces and the fingers are its favorite localities.

What course does vesicular eczema pursue?

Usually chronic, with acute exacerbations. Not infrequently it passes into eczema rubrum.

Describe the symptoms of pustular eczema.

Pustular eczema (*eczema pustulosum*, *eczema impetiginosum*) is

probably the least common of all the varieties. It is similar, although usually less actively inflammatory, in its symptoms to eczema vesiculosum, the lesions being pustular from the start or developing from preëxisting vesicles; not infrequently the eruption is mixed, the pustules predominating. There is a marked tendency to rupturing of the lesions, the discharge drying to thick, yellowish, brownish or greenish crusts.

Its most common sites are the scalp and face, especially in young people and in those who are ill-nourished and strumous.

What course does pustular eczema pursue?

Usually chronic, continuing as the same type, or passing into eczema rubrum.

Describe the symptoms of squamous eczema.

Squamous eczema (*eczema squamosum*) may be defined as a clinical variety, the chief symptoms of which are a variable degree of scaliness, more or less thickening, infiltration and redness, with commonly a tendency to cracking or fissuring of the skin, especially when the disease is seated about the joints. It is developed, as a rule, from the erythematous or papular type. Itching is slight or intense.

The disease is not uncommon upon the scalp.

What is the course of squamous eczema?

Essentially chronic.

Describe the symptoms of eczema rubrum.

Eczema rubrum is characterized by a red, raw-looking, weeping, oozing or discharging surface, attended with more or less inflammatory thickening, infiltration and swelling; the exudation, consisting of serum, sometimes bloody, dries into thick yellowish or reddish-brown crusts. At one time the whole diseased area may be hidden under a mass of crusting, at other times a red, raw-looking, weeping surface (*eczema madidans*) is the most striking feature. Itching is slight or intense, or the subjective symptom may be a feeling of burning. It is an important clinical type, usually developing from the vesicular, pustular or other primary variety.

It is common about the face and scalp in children, and the middle and lower part of the leg in elderly people.

What is the course of eczema rubrum?

Chronic, varying in intensity from time to time.

Describe the symptoms of fissured eczema.

In fissured eczema (*eczema fissum*), the conspicuous symptom is a marked tendency to fissuring or cracking of the skin. This tendency is usually a part of an erythematous or squamous eczema,

FIG. 15.

Eczema of the Face and Scalp. (*After Piffard.*)

the fissuring constituting the most conspicuous and troublesome symptom. *Chapping* is an extremely mild but familiar example of this type.

It is especially common about the hands and fingers.

What is the course of fissured eczema?

It is more or less persistent, the tendency to fissuring varying considerably according to the state of the weather, often disappearing spontaneously in the summer months.

Describe the symptoms of eczema sclerosum.

In this variety the eczematous patch is thickened, infiltrated and hard, and almost horny. It is uncommon, and is usually seated about the ankle or foot, developing from the papular or squamous type.

What is the course of eczema sclerosum?

Obstinately chronic.

Describe the symptoms of eczema verrucosum.

This is somewhat similar to eczema sclerosum, the patch being hard, thickened and infiltrated, with a tendency to papillary or wart-like hypertrophy. It develops usually from the papular or squamous type, and is met with about the ankle and foot. It is uncommon.

What is the course of eczema verrucosum?

Obstinately chronic.

What do you understand by eczema seborrhoicum?

A cutaneous inflammation exhibiting symptoms of both eczema and seborrhœa. As yet it can scarcely be said to be a well-defined or recognized type.

State the nature of the subjective symptoms in eczema.

Itching, commonly intense, is usually a conspicuous symptom; it may be more or less paroxysmal. In some cases burning and heat constitute the main subjective phenomena.

Is eczema accompanied by general febrile or constitutional symptoms?

No. In rare instances, in acute universal eczema, slight febrile action, or other systemic disturbance, may be noted at the time of the outbreak.

Is the eczematous eruption (patch or patches) sharply defined against the neighboring sound skin?

No. In almost all instances the diseased area merges gradually and imperceptibly into the surrounding healthy integument.

What is the character of eczema as regards the degree of inflammatory action?

The inflammatory action may be acute, subacute or sluggish in character, and may be so from the start and so continue throughout

its whole course; or it may, as is usually the case, vary in intensity from time to time.

State the character of eczema as regards duration.

As a rule, it is a persistent disease, showing little, if any, tendency to spontaneous disappearance.

Is eczema influenced by the seasons?

Yes. With comparatively few exceptions the disease is most common and much worse in cold, windy, winter weather.

To what may eczema be ascribed?

Eczema may be due to constitutional or local causes, or to both.

Name some of the important constitutional or predisposing causes.

Gouty diathesis, rheumatic diathesis, disorders of the digestive tract, general debility or lack of tone, an exhausted state of the nervous system, dentition and struma.

Is a constitutional cause sufficient to provoke an attack?

Yes; but often the attack is brought about in those so predisposed by some local or external irritant.

Mention some of the external causes.

Heat and cold, sharp, biting winds, excessive use of water, strong soaps, vaccination, dyes and dyestuffs, chemical irritants, and the like.

Contact with the rhus plants, while producing a peculiar dermatitis, usually running an acute course terminating in recovery, may, in those predisposed, provoke a veritable and persistent eczema.

Is eczema contagious?

No.

What is the pathology?

The process is an inflammatory one, characterized in all cases by hyperæmia and exudation, varying in degree according to the intensity and duration of the disease. The rete and papillary layer are especially involved, although in severe and chronic cases the lower part of the corium and even the subcutaneous tissue may share in the process.

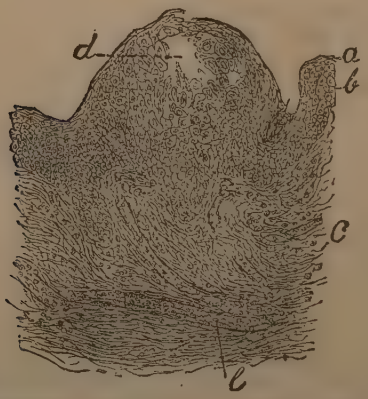
Do the cutaneous manifestations of the eruptive fevers bear resemblance to the erythematous type of eczema?

Scarlatina and erysipelas may, to a slight extent, but the presence or absence of febrile and other constitutional symptoms will usually serve to differentiate.

What common skin diseases resemble some phases of eczema?

Psoriasis, seborrhœa, sycosis, scabies and ringworm.

FIG. 16.



Vertical section of a recent vesicle of eczema. (*After Robinson.*)
a, Corneous layer; *b*, rete mucosum; *c*, corium; *d*, vesicle; *e*, dilated blood vessels.

How would you exclude psoriasis in a suspected case of eczema (squamous eczema)?

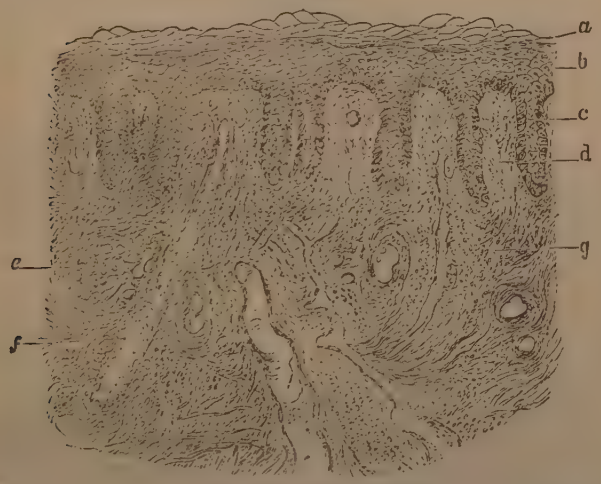
Psoriasis occurs in variously-sized, rounded, *sharply-defined* patches, usually scattered irregularly over the general surface, with special predilection for the elbows and knees. They are covered more or less abundantly with whitish, silvery or mother-of-pearl colored imbricated scales. The patches are always dry, and itching is, as a rule, slight, or may be entirely absent. Eczema, on the contrary, is often localized, appearing as one or more large, irregularly diffused patches; it merges imperceptibly into the sound skin, and there is often a history of characteristic serous or gummy oozing;

the scaling is usually slight and itching almost invariably a prominent symptom.

How would you exclude seborrhœa in a suspected case of eczema?

Seborrhœa of the scalp (in which locality it may resemble eczema) is commonly over the whole of that region and is free from inflammatory symptoms; the scales are of a greasy character and the itching

FIG. 17.



Chronic eczema—vertical section of the skin of the forearm. (*After Kaposi.*)
a, Epidermis; *b*, thickened rete; *c*, hyper-pigmented layer of rete; *d*, enlarged papillæ; *e*, atrophied sebaceous gland; *f*, atrophied hair-follicle; *g*, infiltrated corium.

is usually slight or nil. On the other hand, in eczema of this region the parts are rarely invaded in their entirety; there may be at times the characteristic serous or gummy oozing; inflammatory symptoms are usually well-marked, the scales are dry and the itching is, as a rule, a prominent symptom.

How does scabies differ from eczema?

Scabies differs from eczema in its peculiar distribution, the pre-

sence of the burrows, the absence of any tendency to patch formation, and usually by a clear history of contagion.

How would you exclude ringworm in a suspected case of eczema?

Ringworm is to be distinguished by its circular form, its fading in the centre, and in doubtful cases by microscopic examination of the scrapings.

How does eczema differ from sycosis?

Sycosis is limited to the hairy region of the face, is distinctly a follicular inflammation, and is rarely very itchy; eczema is diffused, usually involves other parts of the face, and itching is an annoying symptom.

State the general prognosis of eczema.

The disease is, under favorable circumstances, curable, some cases yielding more or less readily, others proving exceedingly rebellious. The length of time to bring about a result is always uncertain, and an opinion on this point should be guarded.

Upon what would you base your prognosis in the individual case?

The extent of disease, its duration and previous behavior, the removability of the exciting and predisposing causes, and the attention the patient can give to the treatment.

In eczema involving the lips, face, scrotum, and leg, and especially when this last-named exhibits a varicose condition of the veins, a cure is effected, as a rule, only through persistent and prolonged treatment.

Does eczema ever leave scars?

No. Upon the legs, in long-continued cases, more or less pigmentation usually remains.

How is eczema treated?

As a rule, eczema requires for its removal both constitutional and external treatment.

Certain cases, however, seem to be entirely local in their nature, or the predisposing factors may have disappeared and the disease persist, as it were, from force of habit. Such instances are not

uncommon, and in these cases external treatment alone will have satisfactory results.

What general measures as to hygiene and diet are commonly advisable?

Fresh air, exercise, moderate indulgence in calisthenics, regular habits, a plain, nutritious diet; abstention from such articles of food as pork, salted meat, acid fruits, pastry, gravies, sauces, cheese, pickles, condiments, excessive coffee or tea drinking, etc. As a rule, also, beer, wine, and other stimulants are to be interdicted.

Upon what grounds is the line or plan of constitutional treatment to be based?

Upon indications in the individual case. A careful examination into the patient's general health will usually give the cue to the line of treatment to be adopted.

Mention the important remedies variously employed in the constitutional treatment.

Tonics—such as cod-liver oil, quinine, nux vomica, the vegetable bitters, iron, arsenic, malt, etc.

Alkalies—sodium salicylate, potassium bicarbonate, liquor potassæ, and lithium carbonate.

Alteratives—calomel, colchicum, arsenic, and potassium iodide.

Diuretics—potassium acetate, potassium citrate, and oil of copaiba.

Laxatives—the various salines, aperient spring waters, castor-oil, cascara sagrada, aloes and other vegetable cathartics.

Digestives—pepsin, pancreatin, muriatic acid and the various bitter tonics.

Are there any remedies which have a specific influence?

No; although arsenic, in exceptional instances, seems to exert a special action.

In what class of cases does arsenic often prove of service?

In the sluggish, dry, erythematous, scaly and papular types.

In what cases is arsenic usually contraindicated?

It should never be employed in acute cases; nor in any instance (unless its action is watched), in which the degree of inflammatory action is marked, as an aggravation of the disease usually results.

What should be the character of the external treatment?

It depends mainly upon the degree of inflammatory action; but the stage of the disease, the extent involved, and the ability of the patient to carry out the details of treatment, also have a bearing upon the selection of the plan to be advised.

What is to be said about the use of soap and water in eczema?

In acute and subacute conditions soap and water are to be employed, as a rule, as infrequently and as sparingly as possible, as the disease is often aggravated by their too free use. Washing is necessary, however, for cleanliness and occasionally, also, for the removal of the crusts. On the other hand, in chronic, sluggish types the use of soap and water frequently has a therapeutic value.

How often should remedial applications be made?

Usually twice daily, although in some cases, and especially those of an acute type, applications should be made every few hours.

Mention several remedies or plans of treatment to be used in the acute or actively inflammatory cases.

Black wash and oxide-of-zinc ointment conjointly, the wash being thoroughly dabbed on, allowed to dry, and the parts then gently smeared with the ointment; or the ointment may be applied spread on lint as a plaster.

Boric acid wash (15 grains to the ounce) and oxide-of-zinc ointment, applied in the same manner as the above.

A lotion containing calamine and zinc oxide, the sediment drying and coating over the affected surface :—

℞. Calaminæ,
Zinci oxidi, ... aa . . . . . ʒij–ʒiij
Glycerinæ,
Alcoholis, ... aa . . . . . fʒj
Liq. calcis, ... fʒij
Aquæ, ... q. s. ad . . . . . fʒvj. M.

Carbolic acid lotion, about two drachms to the pint of water, to which may be added two or three drachms each of glycerin and alcohol; or, if there is intense itching, carbolic acid may be added to the several washes already mentioned.

A lotion made of one or two drachms of liquor carbonis detergens * to four ounces of water.

The following wash, especially in the dry form of the disease :—

℞. Ac. borici, ... ℥ij
Ac. carbolici, ... ℥j
Glycerinæ, ... ℥ij
Alcoholis, ... ℥ij
Aquæ, ... q. s. ad . . . . . Oj. M.

Dusting-powders, of starch, zinc oxide and Venetian talc, alone or severally combined, applied freely and often, so as to afford protection to the inflamed surface :—

℞. Talci venet,
Zinci oxidi, ... āā . . . . . ℥iv
Amyli, ... ℥j. M.

If washes or dusting-powders should disagree or are not desirable or practicable, ointments may be employed, such as—

Oxide-of-zinc ointment, cold cream, petrolatum, plain or carbolated, diachylon ointment (if fresh and well prepared), and a paste-like ointment, as follows :—

℞. Ac. salicylici, ... gr. v–x
Pulv. amyli,
Pulv. zinci oxidi, ... āā . . . . . ℥ij
Petrolati, ... ℥iv M.

Or the following ointment :—

℞. Calaminæ, ... ℥j
Ungt. zinci oxidi, ... ℥vij. M.

Name several external remedies and combinations useful in eczema of a subacute or mildly inflammatory type.

The various remedies and combinations useful when the symptoms

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* Liquor carbonis detergens is made by mixing together nine ounces of tincture of soap bark and four ounces of coal tar, allowing to digest for eight days, and filtering.

are acute or markedly inflammatory (mentioned above), and more especially the several following :—

℞. Zinci oxidi, ... ℥ ij
Liq. plumbi subacetat. dilut., ... f℥ vj
Glycerinæ, ... f℥ ij
Infus. picis liq., ... f℥ iij M.

A lotion containing resorcin, five to thirty grains to the ounce.

Solution of zinc sulphate, one-half to three grains to the ounce.

An ointment containing calomel or ammoniated mercury, as in the annexed formula :—

℞. Hydrargyri ammoniat. seu Hydrargyri
chloridi mit., ... gr. x–xxx
Ac. carbolici, ... gr. v–x
Ungt. zinci oxidi, ... ℥ j. M.

Another formula, more especially useful in eczema of the hands and legs, is the following :—

℞. Ac. salicylici, ... gr. xxx
Emp. plumbi,
Emp. saponis,
Petrolati, ... aa . . . . . ℥ j. M.

(This is to be applied as a plaster, spread on strips of lint, and changed every twelve or twenty-four hours.)

The paste-like ointment, referred to as useful in acute eczema, may also be used with a larger proportion (20 to 60 grains to the ounce) of salicylic acid.

The following, containing tar, may often be employed with advantage :—

℞. Ungt. picis liq., ... ℥ j
Ungt. zinci oxidi, ... ℥ vij. M.

What is to be said in regard to the use of tarry applications?

Ointments or lotions containing tar should always be tried at first upon a limited surface, as occasionally skins are met with upon which this remedy acts as a more or less violent irritant.

What external remedies are to be employed in eczema of a sluggish type?

The various remedies and combinations (mentioned above) useful in acute and subacute eczema may often be employed with benefit, but, as a rule, stronger applications are necessary, especially in the thick and leathery patches. The following are the most valuable :—

An ointment of calomel or ammoniated mercury ; forty to sixty grains to the ounce.

Strong salicylic-acid ointment; a half to one drachm of salicylic acid to the ounce of lard.

Tar ointment, officinal strength ; or the various tar oils, alone or with alcohol, as a lotion, or in ointment form.

Liquor picis alkalinus * is a valuable remedy in chronic *thickened*, *hard* and *verrucous* patches, but is a strong preparation and must be used with caution. It is applied diluted, one part with from eight to thirty-two parts of water ; or in ointment, one or two drachms to the ounce. In such cases, also, the following is useful :—

℞. Saponis viridis,
Picis liq.,
Alcoholis, ... āā . . . . . ℥iij. M.
SIG. To be well rubbed in.

In similar cases, also, the parts may be thoroughly washed or scrubbed with sapo viridis and hot water until somewhat tender, rinsed off, dried, and a mild ointment applied as a plaster.

Lactic acid, applied with one to ten or more parts of water is also of value in the sclerous and verrucous types.

Is there any method of treating eczema with fixed dressings?

Several plans have been advised from time to time ; some are costly, and some require too great attention to details, and are therefore impracticable for general employment. The following are those in more common use :—

The *gelatin dressing*, as originally ordered, is made by melting over

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* ℞. Potassæ, ... ℥j
Picis liq., ... ℥ij
Aquæ, ... ℥v.
Dissolve the potash in the water, and gradually add to the tar in a mortar, with thorough stirring.

a water-bath one part of gelatin in two parts of water—quickly painting it over the diseased area; it dries rapidly, and to prevent cracking glycerine is brushed over the surface. Or the glycerine may be incorporated with the gelatin and water in the following proportion: glycerine, one part; gelatin, four parts, and water eight parts. Various medicinal substances may be incorporated with the gelatin mixture.

Plaster-mull and *gutta-percha plaster.* The plaster-mull, consisting of muslin incorporated with a layer of stiff ointment, and the gutta-percha plaster, consisting of muslin faced with a thin layer of India-rubber, the medication being spread upon the rubber coating.

Rubber and *gelatole plaster.* These are medicated with the various drugs used in the external treatment of skin diseases, and are often of great service.

In what types of eczema may these several fixed dressings be used?

The plaster-mull in all types, especially the acute; the gelatin dressing, the gutta-percha plaster and the gelatole plaster in the subacute and chronic; and the rubber plaster in chronic, sluggish patches only.

Prurigo.

Define prurigo.

Prurigo is a chronic, inflammatory disease, characterized by discrete, pin-head- to small pea-sized, solid, firmly-seated, slightly raised, pale-red papules, accompanied by itching and more or less general thickening of the affected skin.

Describe the symptoms and course of prurigo.

The disease first appears upon the tibial regions, and manifests itself by the development of small, millet-seed-sized, or larger, firm elevations, which may be of the natural color of the skin or of a pinkish tinge. The lesions, whilst discrete, are in great numbers, and closely crowded. The overlying skin is dry, rough and harsh; itching is intense, and, as a result of the scratching, excoriations and blood crusts are commonly present. In consequence of the irritation, the inguinal glands are enlarged. Sooner or later the integument becomes considerably thickened, hard and rough. Eczematous symp-

toms may be superadded. In severe cases the entire extensor surfaces of the legs and arms, and in some instances the trunk also, are invaded. It is worse in the winter season.

What is known in regard to etiology and pathology?

It is a disease of the ill-fed and neglected, usually developing in early childhood, and persisting throughout life. It is extremely rare, even in its milder types, in this country. Clinically and pathologically it bears some resemblance to papular eczema.

Give the prognosis and treatment of prurigo.

The disease, in its severer types is, as a rule, incurable, but much can be done to alleviate the condition. Good, nourishing food, pure air and exercise are of importance. Tonics and cod-liver oil are usually beneficial. The local management is similar to that employed in chronic eczema. An ointment of β-naphthol, one-half to five per cent. strength, is highly extolled.

Acne.

Give a definition of acne.

Acne is an inflammatory, usually chronic, disease of the sebaceous glands, characterized by papules, tubercles, or pustules, or a mixture of these lesions, and seated usually about the face.

At what age does acne usually occur?

Between the ages of fifteen and thirty, at which time the glandular structures are naturally more or less active.

Describe the symptoms of acne.

Irregularly scattered over the face, and in some cases also over the neck, shoulders and upper part of the trunk, are to be seen several, fifty or more, pin-head- to pea-sized papules, tubercles or pustules; commonly the eruption is of a mixed type (*acne vulgaris*), the several kinds of lesions in all stages of evolution and subsidence presenting in the single case. Interspersed may generally be seen blackheads, or comedones. The lesions may be sluggish in character, or they may be markedly inflammatory, with hard and indurated bases. In the course of several days or weeks, the papules and tubercles tend gradually to disappear by absorption; or, and as commonly the case,

they become pustular, discharge their contents or dry, and slowly or rapidly disappear, with or without leaving a permanent trace, new lesions arising, here and there, to take their place.

What do you understand by acne punctata, acne papulosa, acne pustulosa, acne indurata, acne atrophica, acne hypertrophica, and acne cachecticorum?

These several terms indicate that the lesions present are, for the most part, of one particular character or variety.

Describe the lesions giving rise to the names of these various types.

Blocking up of the outlet of the sebaceous gland (comedo), which is usually the beginning of an acne lesion, may cause a moderate degree of hyperæmia and inflammation, and a slight elevation, with a central yellowish or blackish point results—the lesion of *acne punctata;* if the inflammation is of a higher grade or progresses, the elevation is reddened and more prominent—*acne papulosa;* if the inflammatory action continues, the interior or central portion of the papule suppurates and a pustule results—*acne pustulosa;* the pustule, in some cases, may have a markedly inflammatory and hard base—*acne indurata;* and not infrequently the lesions in disappearing may leave a pit-like atrophy or depression—*acne atrophica;* or, on the contrary, connective-tissue new growth may follow their disappearance—*acne hypertrophica;* and, in strumous or cachectic individuals, the lesions may be more or less furuncular in type, often of the nature of dermic abscesses, usually of a cold or sluggish character, and of more general distribution—*acne cachecticorum.*

What is acne artificialis?

Acne artificialis is a term applied to an acne or acne-like eruption produced by the ingestion of certain drugs, as the bromides and iodides, and by the external use of tar; this latter is also called *tar acne.*

What course does acne pursue?

Essentially chronic. The individual lesions usually run their course in several days or one or two weeks, but new lesions continue to appear from time to time, and the disease thus persists, with more or less variation, for months or years. In many cases there is, toward

the age of twenty-five or thirty, a tendency to spontaneous disappearance of the disease.

Is the eruption in acne usually abundant?

It varies in different cases and at different periods in the same case. In some instances, not more than five or ten papules and pustules are present at one time; in others they may be numerous. Not infrequently several lesions make their appearance, gradually run their course, and the face continues free for days or one or two weeks.

Does the eruption in acne disappear without leaving a trace?

In many instances no permanent trace remains, but in others slight or conspicuous scarring is left to mark the site of the lesions.

Are there any subjective symptoms in acne?

As a rule, not; but markedly inflammatory lesions are painful.

State the immediate or direct cause of an acne lesion.

Hypersecretion or retention of sebaceous matter.

Name the indirect or predisposing causes of acne.

Digestive disturbance, constipation, menstrual irregularities, chlorosis, general debility, lack of tone in the muscular fibres of the skin, scrofulosis; and medicinal substances such as the iodides and bromides internally, and tar externally.

Working in a dusty or dirty atmosphere is often influential, resulting in a blocking-up of the gland ducts. Workmen in paraffin oils or other petroleum products often present a furuncle-like acne.

The disease is more common in individuals of light complexion.

Is there any difficulty in the diagnosis of acne?

Not if it be remembered that acne eruption is limited to certain parts and is always follicular, and that the several stages, from the comedo to the matured lesion, are usually to be seen in the individual case.

In what respect does the pustular syphiloderm differ from acne?

By its general distribution, the longer duration of the individual lesions, the darker color, and the presence of concomitant symptoms of syphilis.

What is the pathology of acne?

Primarily, acne is a folliculitis, due to retention or decomposition of the sebaceous secretion; subsequently, the tissue immediately surrounding becoming involved, with the possible destruction of the sebaceous follicle as a result. The degree of inflammatory action determines the character of the lesions.

State the prognosis of acne.

It is usually an obstinate disease, but curable. Some cases yield readily, others are exceedingly rebellious. Success depends in a great measure upon a recognition and removal of the predisposing condition. Treatment is ordinarily a matter of months.

What measures of treatment are usually demanded in acne?

Constitutional and local measures; the former when indicated, the latter always.

Upon what is the constitutional treatment based?

Upon general indications.

In dyspepsia and constipation, bitter tonics, alkalies, acids, pepsin, saline and vegetable laxatives, are variously prescribed. Special mention may be made of the following:—

℞. Ext. rhamni pursh. fl., ... ƒʒ ij–ƒʒ iv
Tinct. nucis vom., ... ƒʒ iij
Elix. calisayæ, ... q.s. ad . . . ƒʒ iij. M.
Sig.—ƒʒ j t. d.

Or Hunyadi Janos or Friedrichshall water may be employed for a laxative purpose.

In chlorotic and anæmic cases the ferruginous preparations are of advantage. Cod-liver oil is often a remedy of great value, and is especially useful in strumous and debilitated subjects. Calx sulphurata in pill form, one-tenth to one-fourth grain four or five times daily, occasionally acts well in the pustular variety. Ergot is also of benefit in a small proportion of cases—in those cases due to uterine disturbance or lack of tone in the muscular fibres of the skin. In some instances, more particularly in sluggish papular acne, arsenic, especially the bromide of arsenic, acts favorably.

In inflammatory cases occurring in robust individuals the following is often of service :—

℞. Potassii acetat., ... ℥iv
Liq. potassæ, ... f℥ij
Liq. ammonii acetat., . . . q.s. ad . . f℥iij. M.
Sig.—f℥j–f℥ij t. d., largely diluted.

State the character of the local treatment in acne.

This must vary somewhat with the local conditions. Cases which are acute in character, in the sense that the lesions are markedly hyperæmic, tender and painful, require milder applications, and in exceptional instances soothing remedies are to be prescribed. As a rule, however, stimulating applications may be employed from the start.

The remedies are, for obvious reasons, most conveniently applied at bedtime.

Fig. 18.

Fig. 19.

Acne Lances. Guarded with a shoulder, and thus made safer for patient's own use. The lower (Fig. 19) folds up.

What preliminary measures are to be advised in ordinary acne cases?

Washing the parts gently or vigorously, according to the irritability of the skin, with warm water and soap ; subsequently rinsing, and sponging for several minutes with hot water, and rubbing dry with a soft towel ; after which the remedial application is made. In sluggish and non-irritable cases sapo viridis or its tincture may often be advantageously used in place of the ordinary toilet soap.

The blackheads, so far as practicable, are to be removed by pressure with the fingers or with a suitable instrument (see comedo), and the pustules punctured and the contents pressed out.

State the methods of external medication commonly employed.

By ointments and lotions. If an ointment is used, it is to be thoroughly rubbed in, in small quantity; if a lotion is employed, it is to be well shaken, the parts freely dabbed with it for several minutes and then allowed to dry on.

State the object in view in local medication.

To hasten the maturation and disappearance of the existing lesions, and to stimulate the skin and glands to healthy action.

If slight irritation or scaliness results, the application is to be intermitted one or two nights; in the meantime nothing except the hot water sponging, with or without the application of a mild soothing ointment, is to be employed.

Is it usually necessary to change from one external remedy to another in the course of treatment?

Yes. After a certain time one remedy, as a rule, loses its effect, and a change from lotion to ointment or the reverse, and from one lotion or ointment to another, will often be found necessary in order to bring about continuous improvement.

Name the various important remedies and combinations employed in the external treatment of acne.

Sulphur is the most valuable. It may often be applied with benefit as a simple ointment:—

℞. Sulphur. præcip., ... ʒss–ʒj
Adipis benz.
Lanolin, ... āā . . . . . ʒij.

Or it may be used as a lotion, as in the annexed formula:—

℞. Sulphur. præcip., ... ʒiss
Pulv. tragacanthæ, ... gr. xx
Spts. camphoræ, ... fʒij
Liq. calcis, ... q. s. ad . . . . . fʒiv. M.

Another lotion, especially useful in those cases in which an oily condition of the skin is present, is the following :—

℞. Sulphur. præcip., ... ℥iss
Etheris, ... f℥iv
Alcoholis, ... f℥iijss. M.

A compound lotion containing sulphur in one of its combinations is also valuable in many cases :—

℞. Zinci sulphatis,
Potassii sulphureti, ... āā . . . . ℥ss–℥ij
Aquæ, ... ℥iv. M.

(The salts should be dissolved separately and then mixed ; reaction takes place and the resulting lotion, when shaken, is milky in appearance, and free from odor ; allowed to stand the particles settle, the sediment constituting about one-fourth of the whole bulk).

At times the addition to this formula of several drachms of alcohol or of one half to a drachm of glycerin is of advantage.

An external remedy, often valuable, is ichthyol. It is thus prescribed :—

℞. Ichthyol, ... ℥ss–℥j
Lanolin, ... ℥iv. M.

Resorcin as a lotion, ten to sixty grains to the ounce, is useful in some cases.

The various mercurial ointments, especially one of white precipitate, five to fifteen per cent. strength, are sometimes beneficial.

A compound lotion, containing mercury, which frequently proves serviceable, is :—

℞. Hydrarg. chlorid. corros., ... gr. ii–viij
Zinci sulphatis, ... gr. x–xx
Tinct. benzoini, ... f℥ij
Aquæ, ... q. s. ad . . . . f℥iv.

In extremely sluggish cases the following, used cautiously, is of value :—

℞. Ichthyol,
Saponis viridis,
Sulphur. præcip.,
Lanolin, ... āā . . . . . ℥j.

Obstinate and indurated lesions may be incised, the contents pressed out, and the interior touched with carbolic acid by means of a pointed stick.

What precaution is to be taken in advising a change from a sulphur to a mercurial preparation or the reverse?

Several days should be allowed to intervene, otherwise a disagreeable, although temporary, staining or darkening of the skin results —from the formation of the black sulphuret of mercury.

Acne Rosacea.

Give a descriptive definition of acne rosacea.

Acne rosacea is a chronic, hyperæmic or inflammatory disease, limited to the face, especially to the nose and cheeks, characterized by redness, dilatation and enlargement of the bloodvessels, more or less acne and hypertrophy.

Describe the symptoms of acne rosacea.

The disease may be slight or well-marked. Redness, capillary dilatation, and acne lesions seated on the nose and cheeks, and sometimes on chin and forehead also, constitute in most cases the entire symptomatology.

A mild variety consists in simple redness or hyperæmia, involving the nose chiefly and often exclusively, and is to be looked upon as a passive congestion; this is not uncommon in young adults and is often associated with an oily seborrhœa of the same parts. In many cases the condition does not progress beyond this stage. In other cases, however, sooner or later, the dilated capillaries become permanently enlarged (*telangiectasis*) and acne lesions are often present—constituting the middle stage or grade of the disease; this is the type most frequently met with. In exceptional instances, still further hypertrophy of the bloodvessels ensues, the glands are enlarged, and a variable degree of connective-tissue new growth is added; this latter is usually slight, but may be excessive, the nose presenting an enlarged and lobulated appearance (*rhinophyma*).

Are there any subjective symptoms in acne rosacea?

As a rule, no. Some of the acne lesions may be tender and painful, and at times there is a feeling of heat and burning.

What do you know in regard to the etiology?

In many cases the causes are obscure. Chronic digestive and intestinal disorders, anæmia, chlorosis, continued exposure to heat or cold, menstrual and uterine irregularities, and the habitual use of spirituous liquors, are not infrequently responsible factors.

It is essentially a disease of adult life, common about middle age, occurring in both sexes, but rarely reaching the same degree of development in women as observed at times in men.

Is acne rosacea easily recognized?

Yes. The redness, acne lesions, dilated capillaries, and, at times, the glandular and connective-tissue hypertrophy; the limitation of the eruption to the face, especially the region of the nose; the evident involvement of the sebaceous glands, the absence of ulceration, taken with the history of the case, are characteristic.

It is to be distinguished from the tubercular syphiloderm and lupus vulgaris, diseases to which it may bear rough resemblance.

State the prognosis of acne rosacea.

All cases may be favorably influenced by treatment; the mild and moderately developed types are, as a rule, curable, but usually obstinate. It is a persistent disease, showing little, if any, tendency to disappear spontaneously.

What is the method of treatment?

Both constitutional and local measures are demanded in most cases.

Upon what is the constitutional treatment to be based?

The constitutional treatment, beyond a regulation of the diet, is to be based upon a correct appreciation of the etiological factors in the individual case. There are no special remedies. Iron, cod-liver oil, tonics, ergot, alkalies, saline laxatives, and similar drugs are to be variously prescribed.

What is the external treatment?

In many respects, both as to the preliminary measures and remedies, essentially the same as that employed in the treatment of simple acne (*q. v.*). In addition to the treatment there found, however, several other applications deserve mention:—

In many cases *Vleminckx's solution** is valuable, applied diluted with one to ten parts of water. Also, a mucilaginous paste containing sulphur :—

℞. Mucilag. acaciæ, ... f℥iij
Glycerinæ, ... f℥ij
Sulphur. præcip., ... ℥iij. M.

Or a similar paste with the glycerine in the foregoing replaced with ichthyol may be used.

In what manner are the dilated bloodvessels and connective tissue hypertrophy to be treated?

The enlarged capillaries are to be destroyed by incision or by electrolysis. Properly managed the vessels may be thus destroyed, but unless the predisposing causes have disappeared or have been remedied, a new growth may take place.

If the knife is employed, the vessels are either slit in their length or cut transversely at several points. The method by electrolysis is the same as used in the removal of superfluous hair (*q. v.*). ; the needle may, if the vessel is short, be inserted along its calibre, or if long, may be inserted at several points in its length.

Excessive connective-tissue growth, exceptionally met with, is to be treated by ablation with the scissors or knife.

Sycosis.

(*Synonyms :* Sycosis Non-parasitica ; Folliculitis Barbæ.)

What do you understand by sycosis?

Sycosis is a chronic, inflammatory affection involving the hair-follicles, usually of the bearded region only, and characterized by papules, tubercles and pustules perforated by hairs.

Describe the symptoms of sycosis.

Sycosis begins by the formation of papules and pustules about

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* ℞. Calcis, ... ℥ss
Sulph. sublimat., ... ℥j
Aquæ, ... ℥x.
To be boiled down to ℥vj and filtered.

the hair-follicles; the lesions occur in numbers, in close proximity, and together with the accompanying inflammation, make up a small or large area. The pustules are small, rounded, flat or acuminated, discrete, and yellowish in color; they are perforated by hairs, show no tendency to rupture, and are apt to occur in crops, drying to thin yellowish or brownish crusts. Papules and tubercles are often intermingled. More or less swelling and infiltration are noticeable.

The disease is seen, as a rule, only on the bearded part of the face, either about the cheeks, chin or upper lip, involving a small portion or the whole of these parts.

Does conspicuous hair loss occur in sycosis?

Ordinarily not; the hairs are, especially at first, usually firmly seated, but in those cases in which suppuration is active, and has involved the follicles, they may, as a rule, be easily extracted. In some cases destruction of the follicles ensues and slight scarring and permanent hair loss result.

State the character of the subjective symptoms.

Pain and itching and a sense of burning, variable as to degree, may be present.

What is the course of the disease?

Essentially chronic, the inflammatory action being of a subacute or sluggish character, with acute exacerbations.

State the causes of sycosis.

The etiology is obscure. It is not contagious. Local irritation may act as an exciting cause. Entrance into the follicles of a peculiar microörganism is suggested as the essential factor.

It is seen in the male sex only, usually in those between the ages of twenty-five and fifty; and is met with in those in good and bad health, and among rich and poor. It is comparatively infrequent.

What is the pathology of sycosis?

According to latest investigations the disease is primarily a perifolliculitis, the follicle and its sheath subsequently becoming involved in the inflammatory process.

How would you distinguish sycosis from eczema?

Eczema is rarely sharply limited to the bearded region, but is apt to involve other parts of the face; moreover, the lesions are usually

confluent, and there is either an oozing, red crusted surface or it is dry and scaly.

How would you exclude tinea sycosis in the diagnosis?

In tinea sycosis, or ringworm, the history of the case is different. The parts are distinctly lumpy and nodular; the hairs are soon involved and become dry, brittle, loose and fall out, or they may be readily extracted. In doubtful cases, microscopic examination of the hairs may be resorted to.

Give the prognosis of sycosis.

The disease is curable, but almost invariably obstinate and rebellious to treatment. The duration, extent and character of the inflammatory process must all be considered. An expression of an opinion as to the length of time required for a cure should always be guarded.

How is sycosis to be treated?

Mainly, and often exclusively, by external applications.

Is constitutional treatment of no avail in sycosis?

In some instances; but, as a rule, it is negative. If indicated, such remedies as tonics, alteratives, cod-liver oil and the like are to be prescribed. Calx sulphurata, in one-tenth to one-fourth grain doses, every three or four hours, is sometimes of service.

Describe the external treatment.

Crusting, if present, is to be removed by warm embrocations. If the inflammation is of a high grade, and the parts tender and painful, soothing applications, such as bland oils, black wash and oxide-of-zinc ointment, cold cream and petrolatum, are to be used; boric acid solution, fifteen grains to the ounce, may be advised in place of black wash.

In most cases, however, astringent and stimulating remedies are demanded from the start, such as: diachylon ointment, alone or with ten to thirty grains of calomel to the ounce; citrine ointment, with one to three parts of lard or petrolatum; præcipitated sulphur, one to three drachms to the ounce of benzoated lard, or lard and lanolin; a ten to twenty-five per cent. ichthyol ointment; and resorcin lotion or ointment, ten to twenty per cent. strength.

A change from one application to another will be found necessary in almost all cases.

What would you advise in regard to shaving?

When bearable (and after a few days' application of soothing remedies it almost always is), it is to be advised in all cases, as it materially aids in the treatment. After a cure is effected it should be continued for some months, until the healthy condition of the parts is thoroughly established.

When is extraction of the hairs advisable as a therapeutic measure?

When the suppurative process is active, in order to save the follicles from destruction; incising or puncturing the pustules will often accomplish the same end.

FIG. 20.

Dermatitis Papillaris Capillitii.

Dermatitis Papillaris Capillitii.

(*Synonym:* Acne Keloid.)

Describe dermatitis papillaris capillitii.

This is a peculiar, mildly inflammatory, sycosiform, keloidal,

acne-like disease of the hairy border of the back of the neck, often extending upward to the occipital region; partaking, especially later in its course, somewhat of the nature of keloid. Several or more acne-like lesions, papular and pustular in character, make their appearance, developing slowly, usually to the size of peas; are red, pale red, or whitish, often enveloping small tufts of hair, and attended with more or less hair loss. Its course is gradual and persistent. It is an exceedingly rare condition, the exact nature of which is still obscure.

Give the treatment.

Treatment, which is usually unsatisfactory, consists of stimulating applications—the same, in fact, as employed in sycosis, the sulphur and ichthyol preparations deserving special mention.

Impetigo.

(*Synonym:* Impetigo Simplex.)

What is impetigo?

Impetigo is an acute, inflammatory disease, characterized by the formation of one or more pea- or finger-nail-sized, rounded and elevated, usually firm, discrete pustules.

Describe the symptoms and course of impetigo.

The affection is sometimes preceded by slight malaise. Several or more lesions may be present, scattered over one part, or more commonly over various regions, such as the face, hands, feet and lower extremities. The pustules are such from the beginning, and when developed are usually of the size of a pea or finger-nail, elevated, semi-globular or rounded, with somewhat thick and tough walls, and of a whitish or yellowish color; at first there may be a slight inflammatory areola, but as the lesion matures this almost, if not entirely, disappears. The pustules show no disposition to umbilication, rupture or coalescence; drying in the course of several days or a week to yellowish or brownish crusts, which soon drop off, leaving no permanent trace.

The disease is benign in character and usually of short duration, and, as a rule, without subjective symptoms.

What is the cause of the disease?

The cause is not known. It may possibly be due to the presence of microörganisms. Its subjects, commonly young children, are often well-nourished. Microscopically the contents of the lesions are found to be composed of pus corpuscles, a few red blood corpuscles, epithelial cells and cellular debris.

With what diseases may impetigo be confounded?

With impetigo contagiosa and ecthyma.

In what respects do impetigo contagiosa and ecthyma differ from impetigo?

The lesions of impetigo contagiosa are vesicular or vesico-pustular, flattened, thin-walled, superficial and often umbilicated, and, if close together, tend to coalesce, drying, in the course of a few days or a week, to thin, wafer-like, light yellowish crusts.

The lesions of ecthyma are markedly inflammatory, having a hard and often extensive base, and a distinct areola, drying to brownish or blackish crusts, beneath which will be found deep excoriations. It is, moreover, usually seen in adults, in those who are in a depraved condition of health.

State the prognosis of impetigo.

Favorable. The disease tends to rapid and spontaneous disappearance, rarely lasting more than a few weeks.

Give the treatment.

Treatment is seldom demanded; but the lesions may be incised, the contents pressed out, and a simple protective dressing of carbolized oxide-of-zinc ointment applied. For sluggish lesions, the same ointment, with ten to twenty grains of white precipitate, may be used.

Impetigo Contagiosa.

Give a descriptive definition of impetigo contagiosa.

Impetigo contagiosa is an acute, contagious, inflammatory disease, characterized by the formation of discrete, superficial, flat, rounded, or ovalish vesicles or blebs, soon becoming vesico-pustular, and drying to thin yellowish crusts.

Upon what parts does the eruption commonly appear?

Upon the face, scalp, and hands, and exceptionally upon other regions.

Describe the symptoms of impetigo contagiosa.

One, several or more small pin-head-sized papulo-vesicles or vesicles make their appearance, usually upon the face and fingers. They increase in size by extending peripherally, but are more or less flattened and umbilicated, and are without conspicuous areola. The lesions may attain the size of a dime or larger, and when close together may coalesce and form a large patch. In some cases distinct blebs result. New lesions may appear for several days, but finally, in the course of a week or ten days, they have all dried to thin, wafer-like crusts, of a straw or light-yellow color, but slightly adherent, and appearing as if stuck on; these soon drop off, leaving faint reddish spots, which gradually fade. As a rule there are no constitutional symptoms, but in the more severe cases the eruption may be preceded by febrile disturbance and malaise. Itching may or may not be present.

State the cause of the disease.

The etiology is not known. It is contagious, the contents of the lesions being inoculable and auto-inoculable. At times it seems to prevail in epidemic form. Microörganisms have been looked upon as causative. A relationship to vaccination has been noted in some instances. It is commonly observed in infants and young children.

From what diseases is impetigo contagiosa to be differentiated?

From eczema, simple impetigo, pemphigus, and ecthyma.

How does impetigo contagiosa differ from these several diseases?

By the character of the lesions, their growth, their superficial nature, their course, the absence of an inflammatory base and areola, the thin, yellowish, wafer-like crusts, and usually a history of contagion.

State the prognosis.

The effect of treatment is usually prompt. The disease, indeed, tends to spontaneous disappearance in one to two weeks; in excep-

tional instances, more especially in those cases in which itching is present, the excoriations or scratch-marks become inoculated, and in this way it may persist several weeks.

What is the treatment of impetigo contagiosa?

Treatment consists in the destruction of the auto-inoculable properties of the contents of the lesions; this is effected by removing the crusts by means of warm water-and-soap washings, and subsequently rubbing in an ointment of ammoniated mercury, ten to twenty grains to the ounce. In itching cases, a saturated solution of boric acid, or a carbolic acid lotion, one to two drachms to the pint, is to be employed for general application.

Impetigo Herpetiformis.

Describe impetigo herpetiformis.

Impetigo herpetiformis is an extremely rare disease, observed usually in pregnant women, and is characterized by the appearance of numerous isolated and closely-crowded pin-head-sized superficial pustules, which show a decided disposition to the formation of circular groups or patches. The central portion of these groups dries to crusts, while new pustules appear at the peripheral portion. They tend to coalesce, and in this manner a greater part of the whole surface may, in the course of weeks or months, become involved. Profound constitutional disturbance, usually of a septic character, precedes and accompanies the disease; in almost every instance a fatal termination sooner or later results.

It is possibly a grave type of dermatitis herpetiformis.

Ecthyma.

Give a descriptive definition of ecthyma.

Ecthyma is a disease characterized by the appearance of one, several or more discrete, finger-nail-sized, flat, usually markedly inflammatory pustules.

Describe the symptoms and course of ecthyma.

The lesions begin as small, usually pea-sized, pustules; increase

somewhat in area, and when fully developed are dime-sized, or larger, somewhat flat, with a markedly inflammatory base and areola. At first yellowish they soon become, from the admixture of blood, reddish, and dry to brownish crusts, beneath which will be found superficial excoriations. The individual pustules are usually somewhat acute in their course, but new lesions may continue to appear from day to day or week to week. As a rule, not more than five to twenty are present at one time, and in most cases they are seated on the legs. More or less pigmentation, and sometimes superficial scarring, may remain to mark the site of the lesions.

Itching is rarely present, but there may be more or less pain and tenderness.

What is the cause of ecthyma?

It is essentially a disease of the poorly cared-for and ill-fed, and, according to present prevailing views regarding suppurative processes, the direct exciting cause may be the introduction of micro-organisms into the follicular openings. It is commonly observed in male adults.

From what diseases is ecthyma to be differentiated?

From simple impetigo, impetigo contagiosa, and the flat pustular syphiloderm.

How is it distinguished from these several diseases?

The size, shape, inflammatory action, and the depraved general condition will serve to differentiate it from simple impetigo; the same characters, the distribution and non-contagiousness will distinguish it from impetigo contagiosa; and the absence of concomitant symptoms of syphilis, and of positive ulceration, as well as its distribution and more rapid and inflammatory course, will exclude the pustular syphiloderm.

State the prognosis.

The disease is readily curable, disappearing upon the removal of the predisposing cause.

What treatment is to be advised?

Good food, proper hygiene and tonic remedies; and, locally, removal of the crusts and stimulation of the underlying surface with an ointment of ammoniated mercury, ten to thirty grains to the ounce.

Pemphigus.

What do you understand by pemphigus?

Pemphigus is an acute or chronic disease characterized by the successive formation of irregularly-scattered, variously-sized blebs.

Name the varieties met with.

Two varieties are usually described—pemphigus vulgaris and pemphigus foliaceus.

Describe the symptoms and course of pemphigus vulgaris.

With or without precursory symptoms of systemic disturbance, irregularly scattered blebs, few or in numbers, make their appearance, arising from erythematous spots or from apparently normal skin. They vary in size from a pea to a large egg, are rounded or ovalish, usually distended, and contain a yellowish fluid which, later, becomes cloudy or puriform. If ruptured, the rete is exposed, but the skin soon regains its normal condition; if undisturbed, the fluid usually disappears by absorption. Each lesion runs its course in several days or a week.

What course does pemphigus vulgaris pursue?

Usually chronic. The disease may subside in several months and the process come to an end, constituting the acute type. As a rule, however, the disease is chronic, new blebs continuing to appear from time to time for an indefinite period.

In what respects does the severe form of pemphigus vulgaris differ from the ordinary type?

In the severe or malignant type the eruption is more profuse; there is marked, and often grave, systemic depression, and the lesions are attended with ulcerative action.

Describe the symptoms and course of pemphigus foliaceus.

In this, the grave type of the disease, the blebs are loose and flaccid, with milky or puriform contents, rupturing and drying to crusts, which are cast off, disclosing the reddened corium. New blebs appear on the sites of disappearing or half-ruptured lesions, and the whole surface may be thus involved and the disease continue for years, compromising the general health and eventually ending fatally.

What is the character of the subjective symptoms in pemphigus?

The subjective symptoms consist variously of heat, tenderness, pain, burning and itching, and may be slight or troublesome.

What is known in regard to the etiology of pemphigus?

The causes are obscure; general debility, overwork, shock and

FIG. 21.

Pemphigus bulla × 50. (*After Crocker.*)

a, Natural size of bulla; *b*, whole thickness of epidermis; *c*, sweat duct traversing bulla; *d*, abundant round-cell infiltration of upper layers of the corium; *e*, coagulated albuminous contents of bulla.

nervous exhaustion are thought to be of influence. The disease is not contagious, nor is it due to syphilis. It may occur at any age.

It is a rare disease, especially in this country.

What is the pathology?

The lesions are superficially seated, usually between the horny layer and upper part of the rete. Round-cell infiltration and dilated blood vessels are found about the papillæ and in the subcutaneous

tissue. The contents of the blebs, always of alkaline reaction, are at first serous, later containing blood corpuscles, pus, fatty-acid crystals, epithelial cells, and occasionally uric acid crystals and free ammonia.

From what diseases is pemphigus to be differentiated?

From herpes iris, the bullous syphiloderm, impetigo contagiosa and dermatitis herpetiformis.

How do these several diseases differ from pemphigus?

The acute course, small lesions, concentric arrangement, variegated colors, and distribution, in herpes iris; the thick, bulky, greenish crusts, the underlying ulceration, the course, history, and the presence of concomitant symptoms of syphilis, in the bullous syphiloderm; the history, course, distribution, the character of the crusting, and the contagious and auto-inoculable properties of the contents of the lesions, in impetigo contagiosa; the tendency to appear in groups, the smaller lesions, the intense itchiness, course, multiform characters of the eruption and the disposition to change of type in dermatitis herpetiformis,—will serve as differential points.

State the prognosis of pemphigus.

Its duration is uncertain, and the issue may in severe cases be fatal. In the milder types, after months or several years, recovery may take place.

The extent and severity of the disease and the general condition of the patient are always to be considered before an opinion is expressed.

Give the treatment of pemphigus.

Both constitutional and local measures are demanded. Good nutritious food and hygienic regulations are essential. Arsenic and quinia are the most valuable remedies; other tonics, such as iron, strychnia and cod-liver oil, are also at times of service.

The blebs should be opened, and the parts anointed or covered with a mild ointment. In more general cases bran, starch and gelatin baths, and in severe cases the continuous bath, if practicable, are to be used.

CLASS III.—HEMORRHAGES.

Purpura.

Define purpura.

Purpura is a hemorrhagic affection characterized by the appearance of variously-sized, usually non-elevated, smooth, reddish or purplish spots or patches, not disappearing under pressure.

Name the several varieties met with.

Three—purpura simplex, purpura rheumatica and purpura hæmorrhagica; denoting, respectively, the mild, moderate and severe grade of the disease. The division is, to a great extent, an arbitrary one.

Describe the clinical appearance and course of an individual lesion of purpura.

The spot, which may be pin-head, pea-, bean-sized or larger, appears suddenly, and is of a bright red or purplish red color. Its brightness gradually fades, the color changing to a bluish, bluish-green, bluish- or greenish-yellow, dirty yellowish, yellowish-white, and finally disappearing; varying in duration from several days to several weeks.

Describe the symptoms of purpura simplex.

Purpura simplex, or the mild form, shows itself as pin-point to pea- or bean-sized, bright or dark-red spots, limited, as a rule, to the limbs, especially the lower extremities; fading gradually away and coming to an end in a few weeks, or new crops appearing irregularly for several months. There is rarely any systemic disturbance, and, as a rule, no subjective symptoms; in exceptional cases an urticarial element is added—*purpura urticans.*

Describe the symptoms of purpura rheumatica.

Purpura rheumatica (also called *peliosis rheumatica*) is usually preceded by symptoms of malaise, rheumatic pains and sometimes swelling about the joints; these phenomena abate and frequently disappear upon the outbreak of the eruption. The lesions are pea- to dime-sized, smooth, non-elevated, or slightly raised, and of a red-

dish or purplish color; the eruption may be more or less generalized, most abundant upon the limbs, or it may be limited to these parts. It may end in a few weeks, or may persist for several months, new spots appearing irregularly or in the form of crops.

Describe the symptoms of purpura hæmorrhagica.

Purpura hæmorrhagica (also called *land scurvy*) is characterized usually by premonitory, and frequently accompanying, symptoms of general distress, and by the appearance of coin to palm-sized, red or purplish hemorrhagic spots or patches, smooth, non-elevated or raised. Hemorrhage from the mouth, gums and other parts, slight or serious in character, may occur. New lesions continue to appear for several days or weeks; and in exceptional instances, repeated relapses take place, and the disease thus persists for months. It may end fatally.

State the etiology of purpura.

In most instances no cause can be assigned. The disease occurs at all ages from childhood to advanced life, and in individuals apparently in good and bad health alike. The hemorrhagic type is oftener seen in subjects debilitated or in a depraved state of health.

State the diagnostic characters of purpura.

The appearance, irregularly or in crops, of bright-red or purplish spots, evidently of hemorrhagic nature, and not *disappearing upon pressure*, and as they are fading, going through the several changes of color usually observed in any ecchymosis.

How does scurvy (scorbutus) differ from purpura?

Scurvy, which may resemble the severe grade of purpura, has a different history, a recognizable cause, usually a peculiar distribution, and is accompanied with general weakness and a spongy, soft and bleeding condition of the gums.

What is the pathology of purpura?

The lesion of purpura consists essentially of a hemorrhage into the cutaneous tissues. The blood is subsequently absorbed, the hæmatin undergoing changes of color from a red to greenish and pale yellow, and finally fading away.

State the prognosis

The milder varieties disappear in the course of several weeks or months, and are rarely of serious import; the outcome of purpura hæmorrhagica is somewhat uncertain; although usually favorable, a fatal result from internal hemorrhage is possible.

What is the treatment of purpura?

Hygienic and dietary measures, the administration of tonics and astringents, and, in severe cases, by relative or absolute rest.

The drugs commonly prescribed are: ergot, oil of erigeron, oil of turpentine, quinia, strychnia, iron, mineral acids, and gallic acid. *External* treatment is rarely called for, but if deemed advisable, astringent lotions may be employed.

Scorbutus.

(*Synonyms:* Scurvy; Sea Scurvy; Purpura Scorbutica.)

Describe scorbutus.

Scurvy is a peculiar constitutional state, developed in those living under bad hygienic conditions, and is characterized by emaciation, general febrile and asthenic symptoms, a more or less swollen, turgid and spongy and even gangrenous condition of the gums; and concomitantly, or sooner or later, by the appearance, usually upon the lower portion of the legs only, of dark-colored hemorrhagic patches or blotches. The skin of the affected part may become brawny and slightly scaly, and not infrequently may break down and ulcerate. Hemorrhages from the various mucous surfaces, slight or grave, may also take place.

State the etiology of scurvy.

It is due to long-continued deprivation of proper food, especially of fruits and vegetables. Other bad hygienic conditions favor its development. It is seen almost exclusively in sailors and others taking long voyages.

How is scurvy to be distinguished from purpura?

By the asthenic and emaciated general condition and the peculiar puffy, spongy state of the gums. The cutaneous manifestation is

more diffused, forming usually large palm-sized patches, and, as a rule, limited to the region of the ankles or lower part of the legs.

Give the prognosis of scurvy.

The disease is remediable, and usually rapidly so. In those instances in which the same bad hygienic conditions and the ingestion of improper food are continued, death finally results.

What treatment would you advise in scurvy?

Proper food, with an abundance of fruit and vegetables. Lemon or lime juice is especially valuable, and is to be taken freely. If indicated, tonics and stimulants are also to be prescribed. For the relief of the tumid, spongy condition of the gums, astringent and antiseptic mouth washes are to be employed.

The cutaneous manifestations, when tending to ulceration, are to be treated upon general principles.

CLASS IV.—HYPERTROPHIES.

Lentigo.

(*Synonym:* Freckle.)

Describe lentigo.

Lentigo, or freckle, is characterized by round or irregular, pinhead to pea-sized, yellowish, brownish or blackish spots, occurring usually about the face and the backs of the hands. It is a common affection, varying somewhat in the degree of development; the freckles present may be few and insignificant, or they may exist in profusion and be quite disfiguring. Heat and exposure favor their development. Those of light complexion, especially those with red hair, are its most common subjects. The color of the lesion is usually a yellowish-brown.

It is common to all ages, but is generally seen in its greatest development during adolescence, the disposition to its appearance becoming less marked as age advances.

What is the pathology of lentigo?

Lentigo consists simply of a circumscribed deposit of pigment

granules—merely a localized increase of the normal pigment, differing from chloasma (*q. v.*) only in the size and shape of the pigmentation.

State the prognosis.

The blemishes can be removed by treatment, but their return is almost certain.

Name the several applications commonly employed for their removal.

An aqueous or alcoholic solution of corrosive sublimate, one-half to three grains to the ounce; lactic acid, one part to from six to twenty parts of water; and an ointment containing a drachm each of bismuth subnitrate and ammoniated mercury to the ounce.

The applications, which act by removing the epidermal and rete cells and with them the pigment, are made two or three times daily, and their use intermitted for a few days as soon as the skin becomes irritated or scaly.

Chloasma.

What do you understand by chloasma?

Chloasma consists of an abnormal deposit of pigment, occurring as variously-sized and shaped, yellowish, brownish or blackish patches.

Describe the clinical appearances of chloasma.

Chloasma appears either in ill-defined patches, as is commonly the case, or as a diffuse discoloration. Its appearance is rapid or gradual, generally the latter. The patches are rounded or irregular, and usually shade off into the sound skin. One, several or more may be present, and coalescence may take place, resulting in a large irregular pigmented area. The color is yellowish, or brownish, and may even be blackish (*melasma*, *melanoderma*). The skin is otherwise normal.

Into what two general classes may the various examples of chloasma be grouped?

Idiopathic and symptomatic.

What cases of chloasma are included in the idiopathic group?

All those cases of pigmentation caused by external agents, such as the sun's rays, sinapisms, blisters, continued cutaneous hyperæmia from scratching or any other cause, etc.

What cases of chloasma are included in the symptomatic group?

All forms of pigment deposit which occur as a consequence of various organic and systemic diseases, as the pigmentation, for instance, seen in association with tuberculosis, cancer, malaria, Addison's disease, uterine affections, and the like. In such cases, with few exceptions, the pigmentation is usually more or less diffuse.

What is chloasma uterinum?

Chloasma uterinum is a term applied to the ill-defined patches of yellowish-brown pigmentation appearing upon the faces of women, usually between the ages of twenty-five and fifty. It is most commonly seen during pregnancy, but may occur in connection with any functional or organic disease of the utero-ovarian apparatus.

What is argyria?

Argyria is the term applied to the slate-like discoloration which follows the prolonged administration of silver nitrate.

State the pathology of chloasma.

The sole change consists in an increased deposit of pigment.

Give the prognosis of chloasma.

Unless a removal of the exciting or predisposing cause is possible, the prognosis is, as a rule, unfavorable, and the relief furnished by local applications usually but temporary.

If constitutional treatment is advisable, upon what is it to be based?

Upon general principles; there are no special remedies.

How do external remedies act?

Mainly by removing the rete cells and with them the pigmentation; and partly, also, by stimulating the absorbents.

Are all external remedies which tend to remove the upper layers of the skin equally useful for this purpose?

No; on the contrary some such applications are followed by an increase in the pigment deposit.

Name the several applications commonly employed.

Corrosive sublimate in solution, in the strength of one to four

grains to the ounce of alcohol and water; a lotion made up as follows:—

℞. Hydrargyri chlorid. corros., ... gr. iij–viij
Ac. acet. dilut., ... f℥ij
Sodii borat., ... ℈ij
Aquæ rosæ, ... f℥iv. M.

And also the following:—

℞. Hydrargyri chlorid. corros., ... gr. iij–viij
Zinci sulphat.,
Plumbi acetat., ... āā . . . . . ℥ss
Aquæ, ... f℥iv. M.

And lactic acid, with from five to twenty parts of water; and an ointment containing a drachm each of bismuth subnitrate and white precipitate to the ounce.

(The application is made two or three times daily, and as soon as slight scaliness or irritation is produced, is to be discontinued for one or two days.)

Keratosis Pilaris.

(*Synonyms:* Pityriasis Pilaris; Lichen Pilaris.)

What is meant by keratosis pilaris?

Keratosis pilaris may be defined as a hypertrophic affection characterized by the formation of pin-head-sized, conical, epidermic elevations seated about the apertures of the hair follicles.

Describe the clinical appearances of keratosis pilaris.

The lesions are usually limited to the extensor surfaces of the thighs and arms, especially the former. They appear as pin-head-sized, whitish or grayish elevations, consisting of accumulations of epithelial matter about the apertures of the hair follicles. Each elevation is pierced by a hair, or the hair may be twisted and imprisoned within the epithelial mass; or it may be broken off just at the point of emergence at the apex of the papule, in which event it may be seen as a dark, central speck. The skin is usually dry, rough and harsh, and in marked cases, to the hand passing over it, feels not

unlike a nutmeg-grater. The disease varies in its development, in most cases being so slight as to escape attention. As a rule, it is free from itching.

What course does keratosis pilaris pursue?

It is sluggish and chronic.

Mention some of the etiological factors.

It is not an uncommon disease, and is seen usually in those who are unaccustomed to frequent bathing, being most frequently met with during the winter months. It is chiefly observed during early adult life.

Is there any difficulty in the diagnosis?

No. It is thought at times to bear some resemblance to goose-flesh (cutis anserina), the miliary papular syphiloderm in its desquamating stage, and lichen scrofulosus. In goose-flesh the elevations are evanescent and of an entirely different character; the papules of the syphiloderm are usually generalized, of a reddish color, tend to group, are more solid and deeply-seated, less scaly and are accompanied with other symptoms of syphilis; in lichen scrofulosus the papules are larger, incline to occur in groups, and appear usually upon the abdomen.

State the prognosis.

The disease yields readily to treatment.

Give the treatment of keratosis pilaris.

Frequent warm baths, with the use of a toilet soap or sapo viridis, will usually be found curative. Alkaline baths are also useful. In obstinate cases the ordinary mild ointments, glycerine, etc., are to be advised in conjunction with the baths.

Molluscum Epitheliale.

(*Synonyms:* Molluscum Contagiosum; Molluscum Sebaceum; Epithelioma Molluscum.)

Give a definition of molluscum epitheliale.

Molluscum epitheliale is characterized by pin-head to pea-sized, rounded, semi-globular, or flattened, pearl-like elevations, of a whitish or pinkish color.

Describe the symptoms and course of molluscum epitheliale.

The usual seat is the face; not infrequently, however, the growths occur on other parts. The lesions begin as pin-head, waxy-looking, rounded or acuminated elevations, gradually attaining the size of small peas. They have a broad base or occasionally may tend to become pedunculated. They rarely exist in profusion, in most cases three to ten or twelve lesions being present. When fully developed

FIG. 22.

Molluscum Epitheliale. (*After Allen.*)

they are somewhat flattened and umbilicated, with a central, darkish point representing the mouth of the follicle. They are whitish or pinkish, and look not unlike drops of wax or pearl buttons. At first they are firm, but eventually, in most cases, tend to become soft and break down. Not infrequently, however, the lesions disappear slowly by absorption, without apparent previous softening. Their course is usually chronic. The contents, a cheesy-looking mass, may commonly be pressed out without difficulty.

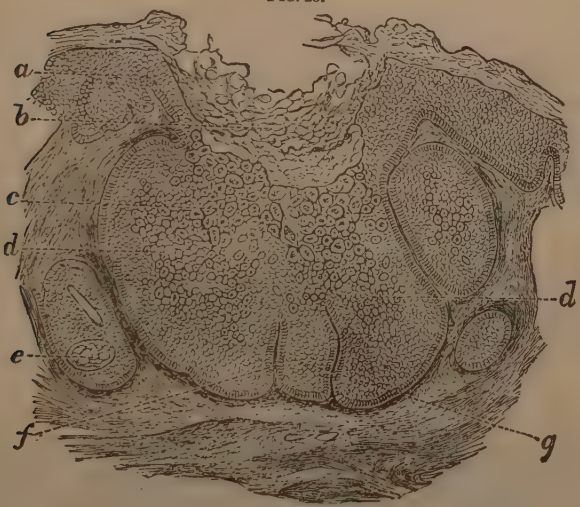
What is the cause of molluscum epitheliale?

Its cause is obscure. Opinion is divided as regards contagiousness. It occurs chiefly in children, and especially among the poorer classes.

State the pathology.

According to recent investigations, molluscum epitheliale is to be

FIG. 23.



Section through the centre of a small beginning tumor of molluscum epitheliale × 100. (*After Crocker.*)

a, Rete mucosum continuous with the tumor; *b*, plug in the centre of tumor, formed by an accumulation of molluscous bodies; *c*, cells of the rete in process of conversion into molluscous change; *d*, *d*, cells in an earlier stage of conversion into molluscous bodies; *g*, pseudo lobe of tumor, formed by vertical and lateral growth of the interpapillary processes; *f*, fibrous septum between lobes of tumor, formed by compression of papilla; *e*, sebaceous gland of small hair-follicle.

regarded as a hyperplasia of the rete, the growth probably beginning in the hair-follicles; the so-called molluscum bodies—peculiar, rounded or ovoidal, sharply-defined, fatty-looking bodies found in microscopical examination of the growth—are to be viewed as a form of epithelial degeneration.

What are the diagnostic points in molluscum epitheliale?

The size of the lesions, their waxy or glistening appearance, and the presence of the central orifice.

It is to be differentiated from molluscum fibrosum, warts and acne.

State the prognosis.

The growths are amenable to treatment. In some instances the disease, after existing some weeks, tends to disappear spontaneously.

What is the treatment of molluscum epitheliale?

Incision and expression of the contents, and touching the base of the cavity with silver nitrate. Pedunculated growths may be ligated. In some cases an ointment of ammoniated mercury, twenty to forty grains to the ounce, applied, by gently rubbing, once or twice daily, will bring about a cure.

Callositas.

(*Synonyms:* Tylosis; Tyloma; Callus; Callous; Callosity; Keratoma.)

What do you understand by callositas?

A hard, thickened, horny patch made up of the corneous layers of the epidermis.

Describe the clinical appearances.

Callosities are most common about the hands and feet, and consist of small or large patches of dry, grayish-yellow looking, hard, slight or excessive epidermic accumulations. They are somewhat elevated, especially at the central portion, and gradually merge into the healthy skin. The natural surface lines are in a great measure obliterated, the patches usually being smooth and horn-like.

Are there any inflammatory symptoms in callositas?

No; but exceptionally, from accidental injury, the subjacent corium becomes inflamed, suppurates, and the thickened mass is cast off.

State the causes of callositas.

Pressure and friction; for example, on the hands, from the use of various tools and implements, and on the feet from ill-fitting shoes.

It is, indeed, often to be looked upon as an effort of nature to protect the more delicate corium.

In exceptional instances it arises without apparent cause.

What is the pathology?

The epidermis alone is involved; it consists, in fact, of a hyperplasia of the horny layer.

State the prognosis of callositas.

If the causes are removed, the accumulation, as a rule, gradually disappears. The effect of treatment is always rapid and positive, but unless the etiological factors have ceased to act, the result is usually but temporary.

How is callositas treated?

When treatment is deemed advisable, it consists in softening the parts with hot-water soakings or poultices, and subsequently shaving or scraping off the callous mass. The same result may also be often effected by the continuous application, for several days or a week, of a 10 to 15 per cent. salicylated plaster, or the application of a salicylated collodion, same strength; it is followed up by hot-water soaking, the accumulation, as a rule, coming readily away.

Clavus.

(*Synonym:* Corn.)

What is clavus?

Clavus, or corn, is a small, circumscribed, flattened, deep-seated, horny formation usually seated about the toes.

Describe the clinical appearances.

Ordinarily a corn has the appearance of a small callosity; the skin is thickened, polished and horny. Exceptionally, however, occurring on parts that are naturally more or less moist, as between the toes, maceration takes place, and the result is the so-called *soft corn.* The dorsal aspect of the toes is the common site for the ordinary variety. The usual size is that of a small pea. They are painful on pressure, and, at times, spontaneously so.

State the causes.

Corns are caused by pressure and friction, and may usually be referred to improperly fitting shoes.

What is the pathology of clavus?

It is a hypertrophy of the epiderm. Its shape is conical, with the base external and the apex pressing upon the papillæ. It is, in fact, a peculiarly-shaped callosity, the central portion and apex being dense and horny, forming the so-called core.

Give the treatment of clavus.

A simple method of treatment consists in shaving off, after a preliminary hot-water soaking, the outer portion, and then applying a ring of felt or like material, with the hollow part immediately over the site of the core; this should be worn for several weeks. It is also possible in some cases to extract the whole corn by gently dissecting it out; the after-treatment being the same as the above.

Another method is by means of a ten- to fifteen-per-cent. solution of salicylic acid, in alcohol or collodion, or the following:—

℞. Ac. salicylici, ... gr. xxx
Ext. cannabis Ind., ... gr. x
Collodii, ... ℥iv. M.

This is painted on the corn night and morning for several days, at the end of which time the parts are soaked in hot water, and the mass or a greater part of it, will be found, as a rule, to come readily away; one or two repetitions may be necessary. Lactic acid, with one to several parts of water, applied once or twice daily, acts in a similar manner.

Soft corns, after the removal of pressure, may be treated with the solid stick of nitrate of silver, or by any of the methods already mentioned.

In order that treatment be permanently successful, the feet are to be properly fitted. If pressure is removed, corns will commonly disappear spontaneously.

Cornu Cutaneum.

(*Synonyms:* Cornu Humanum; Cutaneous Horn.)

What is cornu cutaneum?

A cutaneous horn is a circumscribed hypertrophy of the epidermis, forming an outgrowth of horny consistence and of variable size and shape.

At what age and upon what parts are cutaneous horns observed?

They are usually met with late in life, and are mostly seated upon the face and scalp.

FIG. 24.

Cutaneous Horns. Showing beginning epitheliomatous degeneration of the base. (*After Pancoast.*)

Describe the clinical appearances.

In appearance cutaneous horns resemble those seen in the lower animals, differing, if at all, but slightly. They are hard, solid, dry and somewhat brittle; usually tapering, and may be either straight, curved or crooked. Their surface is rough, irregular, laminated or

fissured, the ends pointed, blunt or clubbed. The color varies; it is usually grayish-yellow, but may be even blackish. As commonly seen they are small in size, a fraction of an inch or an inch or thereabouts in length, but exceptionally attain considerable proportions. The base, which rests directly upon the skin, may be broad, flattened, or concave, with the underlying and adjacent tissues normal or the papillæ hypertrophied; and in some cases there is more or less inflammation, which may be followed by suppuration. They are usually solitary formations. They are not, as a rule, painful, unless knocked or irritated.

What course do cutaneous horns pursue?

Their growth is usually slow, and, after having attained a certain size, they not infrequently become loose and fall off; they are almost always reproduced.

What is the cause of these horny growths?

The cause is not known; appearing about the genitalia, they usually develop from acuminated warts. They are rare formations.

State the pathology of cornu cutaneum.

Horns consist of closely agglutinated epidermic cells, forming small columns or rods; in the columns themselves the cells are arranged concentrically. In the base are found hypertrophic papillæ and some bloodvessels. They have their starting-point in the rete mucosum, either from that lying above the papillæ or that lining the follicles and glands.

Does epitheliomatous degeneration of the base ever occur?

Yes.

State the prognosis.

Cutaneous horns may be readily and permanently removed.

What is the treatment?

Treatment consists in detachment, and subsequent destruction of the base; the former is accomplished by dissecting the horn away from the base or forcibly breaking it off, the latter by means of any of the well-known caustics, such as caustic potash, chloride of zinc and the galvano-cautery.

Another method is to excise the base, the horn coming away with it; this necessitates, however, considerable loss of tissue.

Verruca.

(*Synonym:* Wart.)

What is verruca?

Verruca, or wart, is a hard or soft, rounded, flat, acuminated or filiform, circumscribed epidermal and papillary growth.

Name the several varieties of warts met with.

Verruca vulgaris, verruca plana, verruca digitata, verruca filiformis and verruca acuminata.

Describe verruca vulgaris.

This is the common wart, occurring mostly upon the hands. It is rounded, elevated, circumscribed, hard and horny, with a broad base, and usually the size of a pea. At first it is smooth and covered with slightly thickened epidermis, but later this disappears to some extent, the hypertrophied papillæ, appearing as minute elevations, making up the growth. One, several or more may be present.

Describe verruca plana.

This is the so-called flat wart, and occurs commonly upon the back, especially in elderly people (*verruca senilis*, *keratosis pigmentosa*). It is, as a rule, but slightly elevated, is usually dark in color, and of the size of a pea or finger-nail.

Describe verruca filiformis.

This is a thread-like growth about an eighth or fourth of an inch long, and occurring commonly about the face, eyelids and neck. It is usually soft to the touch and flexible.

Describe verruca digitata.

This is a variety of wart, which, especially about the edges, is marked by digitations, extending nearly or quite down to the base. It is commonly seen upon the scalp.

Describe verruca acuminata.

This variety (*venereal wart*, *pointed wart*, *pointed condyloma*), usually occurs about the genitalia, especially upon the mucous and muco-cutaneous surfaces. It consists of one or more groups of acuminated, pinkish or reddish, raspberry-like elevations, and, accord-

ing to the region, may be dry or moist; if the latter, the secretion, which is usually yellowish and puriform, from rapid decomposition, develops an offensive and penetrating odor. The formation may be the size of a small pea, or may attain the dimensions of a fist.

What is the cause of warts?

The etiology is not known, They are more common in adolescent and early adult life. Irritating secretions are thought to be causative in the acuminated variety.

FIG. 25.

Verruca Acuminata—about the anus. (*After Ashton.*)

State the pathology of warts.

A wart consists of both epidermic and papillary hypertrophy, the interior of the growth containing a vascular loop. In the acuminated variety there are marked papillary enlargement, excessive development of the mucous layer, and an abundant vascular supply.

Give the treatment of warts.

For ordinary warts, excision or destruction by caustics. The repeated application of a saturated alcoholic solution of salicylic acid is often curative, the upper portion being pared off from time to time. The filiform and digitate varieties may be snipped off with the

scissors, and the base touched with nitrate of silver; or a ligature may be used.

Verruca acuminata is to be treated by maintaining absolute cleanliness, and the application of such astringents as liquor plumbi subacetatis, tincture of iron, powdered alum and boric acid. The salicylic acid solution may also be used. In obstinate cases, glacial acetic acid or chromic acid may be cautiously employed.

Verruca Necrogenica.

(*Synonyms:* Post-mortem Wart; Anatomical Tubercle; Tuberculosis Verrucosa Cutis.)

What is verruca necrogenica?

Verruca necrogenica is a rare, localized, papillary or wart-like for-

FIG. 26.

Verruca Necrogenica. (*After Model in Guy's Museum.*)

mation, resulting from contact with decomposing animal matter, and occurring usually about the knuckles or other parts of the hand.

Describe the symptoms.

It begins, as a rule, as a small, papule-like growth, increasing

gradually in area, and when well advanced appears as a pea, dime-sized or larger, somewhat inflammatory, elevated, flat, warty mass, with usually a tendency to slight pus formation between the hypertrophied papillæ. The surface may be horny or it may be crusted.

It tends to enlarge slowly and is usually persistent, but it at times undergoes involution.

What is the etiology of verruca necrogenica?

According to recent investigations, it is thought to be due to inoculation of the tubercle bacillus—analogous, in fact, in its etiology, to lupus and other forms of tuberculosis of the skin.

Give the prognosis.

It is usually persistent, and may be progressive; exceptionally, it tends, after a time, to spontaneous disappearance.

What is the treatment of verruca necrogenica?

Treatment consists in its removal by means of such caustics as caustic potash, chromic and nitric acid; or by means of thorough curetting and subsequent cauterization of the base with nitrate of silver or other caustic. In some cases the continuous application of a strong (25 per cent.) salicylic-acid plaster will bring about a cure.

Nævus Pigmentosus.

(*Synonym:* Mole.)

Describe nævus pigmentosus.

Nævus pigmentosus, commonly known as mole, may be defined as a circumscribed increase in the pigment of the skin, usually associated with hypertrophy of one or all of the cutaneous structures, especially of the connective tissue and hair. It occurs singly or in numbers; is usually pea-, bean-sized or larger, rounded or irregular, smooth or rough, flat or elevated, and of a color varying from a light brown to black; the hair found thereon may be either colorless or deeply pigmented, coarse and of considerable length. It is, as a rule, a permanent formation.

Name the several varieties of nævus pigmentosus met with.

Nævus spilus, nævus pilosus, nævus verrucosus, and nævus lipomatodes.

What is nævus spilus?

A smooth and flat nævus, consisting essentially of augmented pigmentation alone.

What is nævus pilosus?

A nævus upon which there is an abnormal growth of hair, slight or excessive.

What is nævus verrucosus?

A nævus to which is added hypertrophy of the papillæ, giving rise to a furrowed and uneven surface.

What is nævus lipomatodes?

A nævus with excessive connective-tissue hypertrophy.

State the etiology of nævus pigmentosus.

The causes are obscure. The growths are usually congenital; but the smooth, non-hairy moles may be acquired.

Give the pathology of nævus pigmentosus.

Microscopical examination shows a marked increase in the pigment in the lowest layers of the rete mucosum, as well as more or less pigmentation in the corium usually following the course of the bloodvessels; in the verrucous variety the papillæ are greatly hypertrophied, in addition to the increased pigmentation. There is, as a rule, more or less connective-tissue hypertrophy.

What is the treatment of nævus pigmentosus?

In many instances interference is scarcely called for, but when demanded consists in the removal of the formation either by the knife, by caustics, or by electrolysis. This last is, in the milder varieties at least, perhaps the best method, as it is less likely to be followed by disfiguring cicatrices. In nævus pilosus the removal of the hairs alone by electrolysis is not infrequently followed by a decided diminution of the pigmentation.

Ichthyosis.

(*Synonym:* Fish-skin Disease.)

Give a descriptive definition of ichthyosis.

Ichthyosis is a chronic, hypertrophic disease, characterized by dryness and scaliness of the skin, with a variable amount of papillary growth.

At what age is ichthyosis first observed?

It is first noticed in infancy or early childhood.

What extent of surface is involved?

Usually the whole surface, but it is most marked upon the extensor surfaces of the arms and legs, especially at the elbows and knees; the face and scalp, in mild cases, often remain free.

Name the two varieties of ichthyosis usually described.

Ichthyosis simplex and ichthyosis hystrix, terms commonly employed to designate the mild and severe forms respectively.

Describe the clinical appearances of ichthyosis.

The milder forms of the disease may be so slight as to give rise to simple dryness or harshness of the skin (*xeroderma*); but as commonly met with it is more developed, more or less marked scaliness in the form of thin or somewhat thick epidermal plates being present. The papillæ of the skin are often slightly hypertrophied. In slight cases the color of the scales is usually light and pearly; in the more marked examples it is dark gray, olive green or black.

In the severe variety—ichthyosis hystrix—in addition to scaliness there is marked papillary hypertrophy, forming warty or spinous patches. This type is rare, and, as a rule, the surface involved is more or less limited.

Are there any inflammatory symptoms in ichthyosis?

No. In fact, beyond the disfigurement, the disease causes no inconvenience; in those well-marked cases, however, in which the scales are thick and more or less immovable, the natural mobility of the parts is compromised and fissuring often occurs. In the winter months, in the severer cases, exposed parts may become slightly eczematous.

Does ichthyosis vary somewhat with the season?

Yes. In all cases the disease is better in the warm months, and in the mild forms may entirely disappear during this time. This favorable change is purely mechanical—due to the maceration to which the increased activity of the sweat glands gives rise.

Is the general health affected in ichthyosis?

No.

What course does ichthyosis pursue?

Chronic. Beginning in early infancy or childhood, it usually becomes gradually more marked until adult age, after which time it, as a rule, remains stationary.

What is the etiology?

Beyond a hereditary influence, which is often a positive factor, the causes are obscure. It is not a common disease.

State the pathology.

Anatomically the essential feature is epidermic hypertrophy, with usually a varying degree of papillary hypertrophy also.

Mention the diagnostic features of ichthyosis.

The harsh, dry skin, epidermic and papillary hypertrophy, the furfuraceous or plate-like scaliness, the greater development upon the extensor surfaces, a history of the affection dating from early childhood, and the absence of inflammatory symptoms.

How is ichthyosis to be distinguished from eczema, psoriasis, and other scaly inflammatory diseases?

By the absence of the inflammatory element.

What is the outlook for a case of ichthyosis?

The prognosis is unfavorable as regards a cure, but the process may usually be kept in abeyance or rendered endurable by proper measures.

What treatment would you prescribe for ichthyosis?

Treatment that has in view removal of the scaliness and the maintenance of a soft and flexible condition of the skin.

In mild cases frequent warm baths, simple or alkaline, will suffice; in others an application of an oily or fatty substance, such as the

ordinary oils or ointments, made several hours or immediately before the bath may be necessary. In moderately developed cases the skin is to be washed energetically with sapo viridis and hot water, followed by a warm bath, after which an oily or fatty application is made. In some of the more severe cases the following plan is often useful: The parts are first rubbed with a soapy ointment consisting of one part of precipitated sulphur and seven parts of sapo viridis; a bath is then taken, the skin wiped dry, and a one to five per cent. ointment of salicylic acid gently rubbed in.

Glycerine lotions, one or two drachms to the ounce of water, are also beneficial; as also the following:—

℞. Potassii iodidi, ... ℥j
Glycerinæ, ... ℥j
Lanolin,
Ol. bubuli, ... āā . . . . . ℥ss. M.

In severe cases of ichthyosis hystrix it may be necessary, also, to employ caustics or the knife.

What systemic treatment would you prescribe?

Constitutional remedies are practically powerless; occasionally some good is accomplished by the internal administration of linseed oil and jaborandi.

Onychauxis.

(*Synonym:* Hypertrophy of the Nail.)

Describe onychauxis.

Onychauxis, or hypertrophy of the nail, may take place in one or all directions, and this increase may be, and often is, accompanied by changes in shape, color, and direction of growth. One or all the nails may share in the process. As the result of lateral deviation of growth, the nail presses upon the surrounding tissues, producing a varying degree of inflammation—*paronychia.*

What is the etiology of hypertrophy of the nail?

The condition may be either congenital or acquired. In the latter instances it is usually the result of the extension to the matrix of

such cutaneous diseases as psoriasis and eczema; or it is produced by constitutional maladies, such as syphilis.

Give the treatment of hypertrophy of the nail.

Treatment consists in the removal of the redundant nail-tissue by means of the knife or scissors; and, when dependent upon eczema or psoriasis, the employment of remedies suitable for these diseases. When it is the result of syphilis, the medication appropriate to this disease is to be employed.

In paronychia the nail should be frequently trimmed and a pledget of lint or cotton be interposed between the edge of the nail and the adjacent soft parts; astringent powders and lotions may often be employed with advantage; and in severe and persistent cases excision of the nail, partial or complete, may be found necessary.

Hypertrichosis.

(*Synonyms:* Hirsuties; Hypertrophy of the Hair; Superfluous Hair.)

What is meant by hypertrichosis?

Hypertrichosis is a term applied to excessive growth of hair, either as regards region, extent, age or sex.

Describe the several conditions met with.

The unnatural hair growth may be slight, as, for instance, upon a nævus (*nævus pilosus*); or it may be excessive, as in the so-called hairy people (*homines pilosi*); or it may also appear on the face, arms and other parts in females, resulting from a hypertrophy of the natural lanugo hairs.

State the causes of hypertrichosis.

Hereditary influence is often a factor; the condition may also be congenital.

If acquired, the tendency manifests itself usually toward middle life. In women, it is not infrequently associated with diseases of the utero-ovarian system; in many instances, however, there is no apparent cause. Local irritation or stimulation has at times a causative influence.

How is hypertrichosis to be treated.

For general hypertrichosis there is no remedy. Small hairy nævi may be excised, or, as also in the larger hairy moles, the hairs may be removed by electrolysis.

On the faces of women, if the hairs are coarse or large, electrolysis constitutes the only satisfactory method; if the hairs are small and lanugo-like, the operation is not to be advised. It is somewhat painful, but never unbearable.

FIG. 27.

The Russian "Dog-faced Man"—an example of excessive hypertrichosis.

What temporary methods are usually resorted to for the removal of superfluous hair?

Shaving, extraction of the hairs and the use of depilatories. As a depilatory, a powder made up of two drachms of barium sulphide and three drachms each of zinc oxide and starch, is commonly (and cautiously) employed; at the time of application enough water is added to the powder to make a paste, and it is then spread thinly upon the parts, allowed to remain five to fifteen minutes, or until

heat of skin or a burning sensation is felt, washed off thoroughly, and a soothing ointment applied.

Describe the method of removal of superfluous hair by electrolysis.

A fine needle in a suitable handle is attached to the *negative* pole of a *galvanic* battery, introduced into the hair-follicle to the depth of the papilla, and the circuit completed by the patient touching the positive electrode; in several seconds slight blanching and frothing usually appear at the point of insertion; a few seconds later the current is broken by release of the positive electrode, and the needle is then withdrawn. Sometimes a wheal-like elevation arises, remains several minutes or hours, and then disappears: or occasionally (rarely if the operator is practiced and skillful) it develops into a pustule.

A strength of current of a half to two milliampères is usually sufficient; the time necessary for the destruction of the papilla varying from several to thirty seconds.

How are you to know if the papilla has been destroyed?

The hair will readily come out with but little, if any, traction.

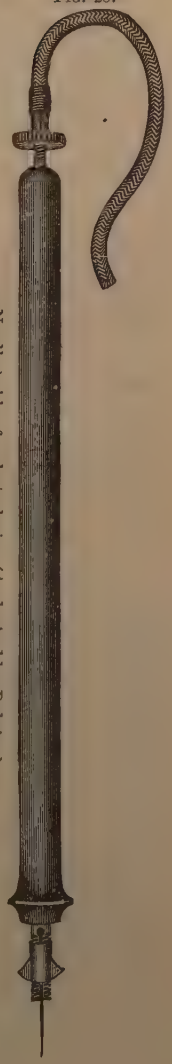
What is the result if the current has been too strong or too long continued?

The follicle suppurates and a scar results.

Why should contiguous hairs not be operated upon at the same sitting?

In order that the chances of marked inflammatory action and scarring (always possibilities) may be reduced to a minimum.

FIG. 28.



Needle holder for electrolysis. (As devised by *Duhring*.)

In case of failure to destroy an individual papilla, should a second attempt be made at the same sitting?

As a rule not, in order to avoid the possibility of too much destructive action, and consequent scarring. It is far better to wait until a subsequent sitting.

Can scarring always be prevented?

In the average case, with skill and care, the use of an exceedingly fine needle and the avoidance of too strong a current, *perceptible* scarring (scarring perceptible to the ordinary observer or at ordinary distance) need rarely occur.

What measures are to be advised for the irritation produced by the operation?

Hot water applications and the use of a lotion of corrosive sublimate (gr. ss–j to ℥ij) are of advantage, not only in reducing the resulting hyperæmia, but also in preventing suppuration and consequent scarring.

Sclerema Neonatorum.

(*Synonyms:* Scleroderma Neonatorum; Sclerema of the Newborn.)

What is sclerema neonatorum?

Sclerema neonatorum is a disease of infancy, showing itself usually at or shortly after birth, and is characterized by a diffuse stiffness and rigidity of the integument, accompanied by coldness, œdema, discoloration, lividity and general circulatory disturbance.

Describe the symptoms, course, nature and treatment of sclerema neonatorum.

As a rule the disease first manifests itself upon the lower extremities, and then gradually, but usually rapidly, invades the trunk, arms and face. The surface is cold. The skin, which is noted to be reddish, purplish or mottled, is œdematous, stiff and tense; in consequence the infant is unable to move, respires feebly and usually perishes in a few days or weeks. In extremely exceptional instances the disease, after involving a small part, may retrogress and recovery take place.

The disease is rare, and in most cases is found associated with pneumonia and with affections of the circulatory apparatus.

Treatment should be directed toward maintaining warmth and proper alimentation.

Scleroderma.

(*Synonyms:* Sclerema; Scleriasis; Dermatosclerosis.)

What is scleroderma?

Scleroderma is an acute or chronic disease of the skin characterized by a localized or general, more or less diffuse, usually pigmented, rigid, stiffened, indurated or hide-bound condition.

Describe the symptoms of scleroderma.

The disease may be acute or chronic, usually the latter. A portion or almost the entire surface may be involved, or it may occupy variously-sized and shaped areas. The integument becomes more or less rigid and indurated, hard to the touch, hide-bound and in marked cases immobile. Œdema may, especially in the more acute cases, precede the induration. Pigmentation, of a yellowish or brownish color, is often a precursory and accompanying symptom. The skin feels tight and contracted, and in some instances numbness and cramp-like pains are complained of. In exceptional cases patches of morphœa are present.

The general health, as a rule, remains good.

What is the course of the disease?

Sooner or later, usually after months or years, the disease ends in resolution and recovery, or in marked atrophic changes, causing contraction and deformity.

State the causes of scleroderma.

The condition is to be considered as probably of neurotic origin. Exposure and shock to the nervous system are to be looked upon as influential. It is a rare disease, observed usually in early adult or middle life, and is more frequent in women than in men. It is closely allied to morphœa, and is by some observers considered identical.

What is the pathology?

In typical and advanced cases, both the true skin and the subcu-

taneous connective tissue show a marked increase of connective-tissue element, with thickening and condensation of the fibres.

Is there any difficulty in reaching a diagnosis in scleroderma?

As a rule, no. The characters—rigidity, stiffness, hardness and hide-bound condition of the skin—are always distinctive.

Give the prognosis of scleroderma.

It should always be guarded. In some instances recovery taking place, whilst in others the disease progresses and lasts throughout life.

The influence of treatment upon the course of the disease is questionable.

What is the treatment of scleroderma?

Tonics, such as arsenic, quinia, nux vomica and cod-liver oil; conjointly with the local employment of stimulating, oily or fatty applications, friction and electricity.

Morphœa.

(*Synonyms:* Keloid of Addison; Circumscribed Scleroderma.)

What is morphœa?

Morphœa, as typically met with, is characterized by one or more rounded, oval or elongate, coin- to palm-sized, pinkish or whitish, ivory-looking patches.

Describe the clinical appearances.

The patches (one, several or more), occurring most frequently about the trunk, are in the beginning usually slightly hyperæmic, later becoming pale-yellowish or white, and having a pinkish or lilac border made up of minute capillaries. They are, as a rule, sharply defined, with a smooth, often shining and atrophic-looking surface; are soft, fine or leathery to the touch, on a level or somewhat depressed, and appearing not unlike a piece of bacon or ivory laid in the skin. Occasionally the patches are noted to occur over nerve-tracts. The adjacent skin may be normal, or there may be more or less yellowish or brownish mottling.

The subjective symptoms of tingling, itching, numbness, and even pain, may or may not be present.

What course does morphœa pursue?

Its progress is slow, and the disease may last for months or years, the patches undergoing degenerative atrophic change, in some instances with a tendency to keloidal formation and consequent deformity. In other cases retrogression takes place, a spontaneous cure resulting without leaving a trace.

What other cutaneous lesions are occasionally seen in association with morphœa?

True sclerodermic areas, pit-like depressions or atrophy, telangiectasis and atrophic spots and lines.

State the etiology of morphœa.

The causes are obscure. Impaired nerve-power is probably influential. It is rare, and is more common in women. It is closely allied to scleroderma. These two affections are thought by many authorities to be essentially the same disease.

What is the pathology?

In the early stages there is atrophy of the papillary layer and connective-tissue of the corium, with cell-infiltration about the sebaceous glands, hair-follicles and bloodvessels. Later atrophy of all the skin structures takes place, the cell-infiltration changing to fibrillar tissue.

From what diseases is morphœa to be differentiated?

From scleroderma, vitiligo and the anæsthetic patches of leprosy.

How is morphœa to be distinguished from these several diseases?

By the peculiar appearance, the course and characters of the patches; in leprosy other symptoms are commonly present.

What is the prognosis in morphœa?

The prognosis should always be guarded; the disease is uncertain in its duration and course, as well as rebellious to treatment, often lasting indefinitely.

What treatment would you prescribe for morphœa?

Tonic, with special reference toward the nervous system; arsenic,

quinine, cod-liver oil, and general and local galvanization or faradization, deserving special mention.

Massage and friction are also serviceable.

Elephantiasis.

(*Synonyms:* Elephantiasis Arabum; Pachydermia; Barbadoes Leg; Elephant Leg.)

Give a descriptive definition of elephantiasis.

Elephantiasis is a chronic hypertrophic disease of the skin and subcutaneous tissue characterized by enlargement and deformity, lymphangitis, swelling, œdema, thickening, induration, pigmentation, and more or less papillary growth.

FIG. 29.

Elephantiasis of moderate development. (*After Sturgis.*)

What parts are commonly involved in elephantiasis?

Usually one or both legs; occasionally the genitalia; other parts are seldom affected.

Describe the symptoms of elephantiasis.

The disease usually begins with recurrent (at intervals of months

or years) erysipelatous inflammation, with swelling, pain, heat, redness and lymphangitis; after each attack the parts remain somewhat increased in size, although at first not noticeably so. After months or one or two years the enlargement or hypertrophy becomes conspicuous, the part is chronically swollen, œdematous and hard; the skin is thickened, the normal lines and folds exaggerated, the papillæ enlarged and prominent, and with more or less fissuring and pigmentation.

FIG. 30.

Elephantiasis of enormous development. (*After Smith.*)

What is the further course of the disease?

There is gradual increase in size, the parts in some instances reaching enormous proportions; the skin becomes rough and warty, eczematous inflammation is often superadded, and, sooner or later, ulcers, superficial or deep, form—which, together with the crusting and moderate scaliness, present a striking picture. There may be periods of comparative inactivity, or, after reaching a certain development, the disease may, for a time at least, remain stationary.

Are there any subjective symptoms?

A variable degree of pain is often noted, especially marked during the inflammatory attacks. The general health is not involved.

State the cause of elephantiasis.

The etiology is obscure. The disease rarely occurs before puberty. It is most common in tropical countries, more especially among the poor and neglected. It is not hereditary, nor can it be said to be contagious. Inflammation and obstruction of the lymphatics, probably due, according to late investigations, to the presence of large numbers of filaria (microscopic thread-worms) in the lymph channels and bloodvessels, is to be looked upon as the immediate cause.

What is the pathology?

All parts of the skin and subcutaneous connective-tissue are hypertrophied, the lymphatic glands are swollen, the lymph channels and bloodvessels enlarged, and there is more or less inflammation, with œdema. Secondarily, from pressure, atrophy and destruction of the skin-glands, and atrophic degeneration of the fat and muscles result.

What are the diagnostic characters of beginning elephantiasis?

Recurrent erysipelatous inflammation, attended with gradual enlargement of the parts.

The appearances, later in the course of the disease, are so characteristic that a mistake is scarcely possible.

Give the prognosis of elephantiasis.

If the case comes under treatment in the first months of its development, the process may probably be checked or held in abeyance; when well established, rarely more than palliation is possible.

What is the treatment of elephantiasis?

The inflammatory attacks are to be treated on general principles. Quinia, potassium iodide, iron and other tonics are occasionally useful; and, especially in the earlier stages, climatic change is often of value. Between the inflammatory attacks the parts are to be rubbed with an ointment of iodine or mercury, together with galvanization of the involved part.

In elephantiasis of the leg, a roller or rubber bandage, or the gum stocking, is to be worn; compression and ligation of the main

artery, and even excision of the sciatic nerve, have all been employed, with more or less diminution in size as a result. In elephantiasis of the genitalia, if the disease is well advanced, excision or amputation of the parts is to be practised.

Eczematous inflammation, if present, is to be treated with the ordinary remedies.

Dermatolysis.

(*Synonym:* Cutis Pendula.)

Give a descriptive definition of dermatolysis.

Dermatolysis is a rare disease, consisting of hypertrophy and looseness of the skin and subcutaneous connective tissue, with a tendency to hang in folds.

Describe the symptoms and course of dermatolysis.

It may be congenital or acquired, and may be limited to a small or large area, or develop simultaneously at several regions. All parts of the skin, including the follicles, glands and subcutaneous connective and areolar tissue, share in the hypertrophy; and this in exceptional instances may be so extensive that the integument hangs in folds. The enlargement of the follicles, natural folds and rugæ gives rise to an uneven surface, but the skin remains soft and pliable. There is also increased pigmentation, the integument becoming more or less brownish.

What course does dermatolysis pursue?

Its development is slow and usually progressive. It gives rise to no further inconvenience than its weight and consequent discomfort.

Give the etiology.

The etiology is obscure. It is considered by some authors as allied to molluscum fibrosum, and, in fact, as a manifestation of that disease, ordinary molluscum tumors sometimes being associated with it. It is not malignant.

What is the pathology?

The disease consists of a simple hypertrophy of all the skin structures and the subcutaneous connective tissue.

What is the treatment of dermatolysis?

Excision when advisable and practicable.

CLASS V.—ATROPHIES.

Albinismus.

What do you understand by albinismus?

Congenital absence, either partial or complete, of the pigment normally present in the skin, hair and eyes.

Describe complete albinismus.

In complete albinismus the skin of the entire body is white, the hair very fine, soft and white or whitish-yellow in color, the irides are colorless or light blue, and the pupils, owing to the absence of pigment in the choroid, are red; this absence of pigment in the eyes gives rise to photophobia and nystagmus. *Albinos*—a term applied to such individuals—are commonly of feeble constitution, and may exhibit imperfect mental development.

Describe partial albinismus.

Partial albinismus is met with most frequently in the colored race. In this form of the affection the pigment is absent in one, several or more variously-sized patches; usually the hairs growing thereon are likewise colorless.

Is there any structural change in the skin?

No. The functions of the skin are performed in a perfectly natural manner, and microscopical examination shows no departure from normal structure save the complete absence of pigment.

What is known in regard to the etiology?

Nothing is known of the causes producing albinismus beyond the single fact that it is frequently hereditary.

Does albinismus admit of treatment?

No; the condition is without remedy.

Vitiligo.

(*Synonyms:* Leucoderma; Leucopathia.)

Give a definition of vitiligo.

Vitiligo may be defined as a disease involving the pigment of the skin alone, characterized by several or more progressive, milky-white patches surrounded by increased pigmentation.

FIG. 31. FIG. 32.

Vitiligo—in the Caucasian. Showing, also, the increased pigmentation of the surrounding skin. (*After Lesser.*)

Describe the symptoms of vitiligo.

The disease may begin at one or more regions, the backs of the hands, trunk and face being favorite parts; its appearance is usually insidious, and the spots may not be especially noticeable until they are the size of a pea or larger. The patches grow slowly, are milky or dead white, smooth, non-elevated, and of rounded outline; the

bordering skin is darker than normal, showing increased pigmentation. Several contiguous spots may coalesce and form a large, irregularly-shaped patch. Hair growing on the involved skin may or may not be blanched.

There are no subjective symptoms.

What course does vitiligo pursue?

The course of the disease is slow, months and sometimes years

FIG. 33.

FIG. 34.

Vitiligo—in the Negro.

elapsing before it reaches conspicuous development. It may after a time remain stationary, or, in rare instances, retrogress; as a rule, however, it is progressive. Exceptionally, the greater part, or even the whole surface may eventually be involved.

Give the etiology of vitiligo.

Disturbed innervation is thought to be influential. The disease

develops often without apparent cause. Alopecia areata and morphœa have been observed associated with it.

State the pathology of vitiligo.

The disease consists, anatomically, of both a diminution and increase of the pigment—the white patch resulting from the former, and the pigmented borders from the latter. There is no textural change, the skin in other respects being normal.

From what diseases is vitiligo to be differentiated?

From morphœa and from the anæsthetic patches of leprosy.

In what respects do these diseases differ from vitiligo?

In morphœa there is textural change, and in leprosy both textural change and constitutional or other symptoms.

What prognosis is to be given?

It should always be guarded, the disease in most instances being irresponsive to treatment.

What is the treatment of vitiligo?

The general health is to be looked after, and remedies directed especially toward the nervous system to be employed. Arsenic, in small and continued doses, seems at times to have an influence; when there is lack of general tone it may be prescribed as follows:—

℞. Liq. potassii arsenitis, ... ƒʒj
Tinct. nucis vom., ... ƒʒiij
Elix. calisayæ, ... q. s. ad . . . ƒʒiv. M.
Sig.—ƒʒj t. d.

When upon exposed parts, stimulation of the patches, with the view of producing hyperæmia and consequent pigment deposit; conjoined with suitable applications to the surrounding pigmented skin, with a view to lessen the coloration (see *treatment of chloasma*), will be of aid in rendering the disease less conspicuous. Or the condition may be, in a measure, masked by staining the patches with walnut juice or similar pigment.

Canities.

(*Synonym:* Grayness of the Hair.)

Describe canities.

Canities, or graying of the hair, may occur in localized areas or it may be more or less general; the blanching may be slight, scarcely amounting to slight grayness, or it may be complete. It is common to advancing years (*canities senilis*); it is seen also exceptionally in early life (*canities præmatura*). The condition is usually permanent. The loss of pigment takes place, as a rule, slowly, but several apparently authentic cases have been reported in which the change occurred in the course of a night or in a few days.

What is the etiology of canities?

The causes are obscure. Heredity is usually an influential factor, and conditions which impair the general nutrition have at times an etiological bearing. Intense anxiety, fright, and other profound nervous shock are looked upon as causative in sudden graying of the hair.

Give the treatment.

Canities is without remedy. Dyeing, although not to be advised, is often practised, and the condition thus masked.

Alopecia.

(*Synonym:* Baldness.)

By alopecia is meant loss of hair, either partial or complete.

Name the several varieties of alopecia.

The so-called varieties are based mainly upon the etiology, and are named congenital alopecia, premature alopecia and senile alopecia.

Describe congenital alopecia.

Congenital alopecia is a rare condition, in which the hair-loss is usually noted to be patchy, or the general hair-growth may simply be scanty. In rare instances the hair has been entirely wanting; in such cases there is usually defective development of other structures, such as the teeth.

Describe premature alopecia.

Loss of hair occurring in early and middle adult life is not uncommon, and may consist of a simple thinning or of more or less complete baldness of the whole or greater part of the scalp. It usually develops slowly, some months or several years passing before the condition is well established. It is often idiopathic, and without apparent cause further than probably a hereditary predisposition. It may also be symptomatic, as, for example, the loss of hair, usually rapid (*defluvium capillorum*), following systemic diseases, such as the various fevers, and syphilis; or as a result of a long-continued seborrhœa or seborrhœic eczema (*alopecia furfuracea*).

Describe senile alopecia.

This is the baldness so frequently seen developing with advancing years, and may consist merely of a general thinning, or, more commonly, a general thinning with a more or less complete baldness of the temporal and anterior portion or of the vertex of the scalp.

What is the prognosis in the various varieties of alopecia?

In those cases in which there is a positive cause, as, for instance, in symptomatic alopecia, the prognosis is, as a rule, favorable, especially if no family predisposition exists. In the congenital and senile varieties the condition is usually irremediable. In idiopathic premature alopecia, the prognosis should be extremely guarded.

How would you treat alopecia?

By removing or modifying the predisposing factors by appropriate constitutional remedies, and by the external use of stimulating applications.

Name several remedies or combinations usually employed in the local treatment.

Sulphur ointment, full strength or weakened with lard or vaseline; a lotion of resorcin consisting of one or two drachms to four ounces of alcohol, to which is added ten to thirty minims of castor oil; and a lotion made up as follows:—

℞. Tinct. cantharidis, ... f℥iv
Tinct. capsici, ... f℥j
Ol. ricini, ... f℥ss–f℥j
Alcoholis, ... q. s. ad . . . . . f℥iv. M.

And also the various other stimulating applications employed in alopecia areata (*q. v.*).

(The application selected should be thoroughly rubbed in daily or every second or third day, according to the case.)

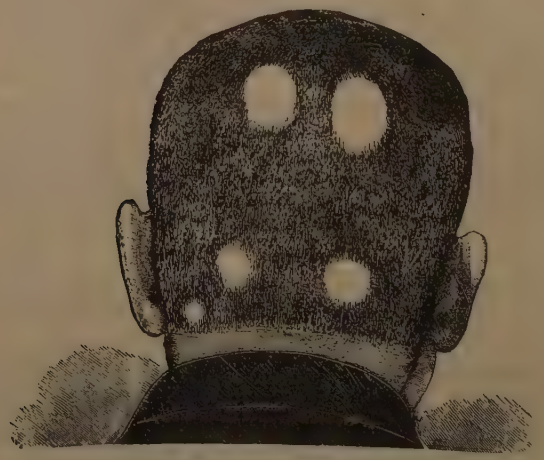
Alopecia Areata.

(*Synonyms:* Area Celsi; Alopecia Circumscripta.)

What do you understand by alopecia areata?

Alopecia areata is an affection of the hairy system, in which occur one or more circumscribed, round or oval patches of complete baldness unattended by any marked alteration in the skin.

FIG. 35.



Alopecia Areata. (*After Robinson.*)

Upon what parts and at what age does the disease occur?

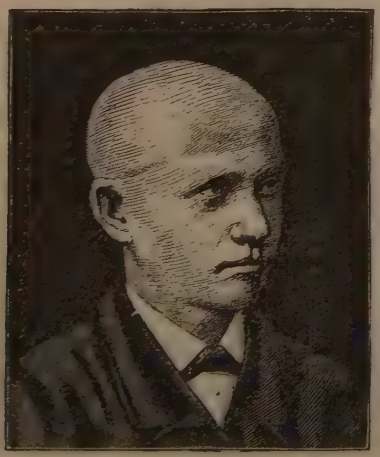
In the large majority of cases the disease is limited to the scalp; but it may invade other portions of the body, as the bearded region, eyebrows, eyelashes, and, in rare instances, the entire integument.

It is most common between the ages of ten and forty.

Describe the symptoms of alopecia areata.

The disease begins either suddenly, without premonitory symptoms, one or several patches being formed in a few hours; or, and as is more usually the case, several days or weeks elapse before the bald area or areas are sufficiently large to become noticeable. The patches continue to extend peripherally for a variable period, and then remain stationary, or several gradually coalesce and form a large, irregular area involving the entire or a greater portion of the scalp. The skin of the affected regions is smooth, faintly pink or milky white, and

FIG. 36.



Alopecia Areata—resulting in complete hair loss. (*After Michelson.*)

at first presents no departure from the normal: sooner or later, however, the follicles become less prominent, and slight atrophy or thinning may occur, the bald plaques being slightly depressed.

What course does alopecia areata pursue?

Almost invariably chronic. After the lapse of a variable period, the patches cease to extend, the hairs at the margins of the bald areas being firmly fixed in the follicles; sooner or later a fine, colorless lanugo, or down, shows itself, which may continue to grow until it

is about a half-inch or so in length and then drop out; or it may remain, become coarser and pigmented, and the parts resume their normal condition. Not infrequently, however, after growing for a time, the new hair falls out, and this may happen several times before the termination of the disease, months or even years sometimes elapsing before permanent recovery takes place.

Are there any subjective symptoms in alopecia areata?

As a rule, not; but occasionally the appearance of the patches is preceded by severe headache, itching or burning, or other manifestations of disturbed innervation.

State the cause of alopecia areata.

The etiology is obscure. Two theories as to the cause of the disease exist: one of these regards it as parasitic, and the other considers it to be trophoneurotic.

Does the skin of the affected area undergo any alterative or destructive changes?

Microscopical examination of the skin of the diseased area shows little or no alteration in its structure beyond slight thinning.

How would you distinguish alopecia areata from ringworm of the scalp?

The plaques of alopecia areata are smooth, often completely devoid of hair, and free from scales; while those of ringworm show numerous broken hairs and stumps, desquamation, and usually symptoms of mild inflammatory action. In doubtful cases recourse should be had to the microscope.

What is the prognosis in alopecia areata?

The disease is often rebellious, but in children and young adults the prognosis is almost invariably favorable, permanent loss of hair being uncommon. The same holds true, but to a much less extent, with the disease as occurring in those of more advanced age.

The uncertain duration, however, must be borne in mind; months, and in some instances several years, may elapse before complete restoration of hair takes place. Relapses are not uncommon.

How is alopecia areata treated?

By both constitutional and local measures, the former having in

view the invigoration of the nervous system, and the latter stimulation of the affected areas.

Give the constitutional treatment.

Arsenic is perhaps the most valuable remedy, while quinine, nux vomica, pilocarpine, cod-liver oil and ferruginous tonics may, in suitable cases, often be administered with benefit.

Name several remedies or combinations employed in the external treatment of alopecia areata.

Ointments of tar and sulphur of varying strength; the various mercurial ointments; the tar oils, either pure or with alcohol; stimulating lotions, containing varying proportions, singly or in combination, of tincture of capsicum, tincture of cantharides, aqua ammoniæ, and oil of turpentine, as in the following:—

℞. Tinct. capsici,
Tinct. cantharidis,
Ol. terebinthinæ, ... āā . . . . . ʒiiss. M.

In obstinate patches repeated blistering, or the cautious use of a five to twenty per cent. chrysarobin ointment, is of value. Galvanization or faradization of the affected parts may also be employed, and with, occasionally, beneficial effect.

(The strength of the applications will depend upon circumstances, a mild degree of irritation being desirable; they are to be thoroughly rubbed in, the friction employed being not without value).

Atrophia Pilorum Propria.

(*Synonym:* Atrophy of the Hair.)

What do you understand by atrophy of the hair?

An atrophic, brittle, dry condition of the hair, and which may be either symptomatic or idiopathic.

Describe the several conditions met with.

As a symptomatic affection, the dry, brittle condition of the hair met with in seborrhœa, in severe constitutional diseases, and in the various vegetable parasitic affections, may be referred to.

As an idiopathic disease it is rare, consisting simply of a brittleness and an uneven and irregular formation of the hair-shaft, with a tendency to split up into filaments (*fragilitas crinium*); or there may be localized swelling and bursting of the hair-shaft, the nodes thus produced having a shining, semi-transparent appearance (*trichorexis nodosa*). This latter usually occurs upon the beard and moustache.

State the causes of atrophy of the hair.

The causes of the symptomatic variety are usually evident; the etiology of idiopathic atrophy is obscure.

FIG. 37.

Trichorexis Nodosa. (*After Michelson.*)

What would be your prognosis and treatment in atrophy of the hair?

Symptomatic atrophy usually responds to proper measures, but always slowly; treatment is based upon the etiological factors.

For the idiopathic disease little, as a rule, can be done; repeated shaving or cutting the hair has, in exceptional instances, been followed by favorable results.

Atrophia Unguis.

(*Synonyms:* Atrophy of the Nails; Onychatrophia.)

Describe atrophy of the nails.

The nails are soft, thin and brittle, splitting easily, and are often opaque and lustreless, and may have a worm-eaten appearance. Several or more are usually affected.

State the causes of atrophy of the nails.

The condition may be congenital or acquired, usually the latter.

It may result from trauma, or be produced by certain cutaneous diseases, notably eczema and psoriasis; or it may follow injuries or diseases of the nerves. Syphilis and chronic wasting constitutional diseases may also interfere with the normal growth of the nail-substance, producing varying degrees of atrophy. The fungi of tinea trichophytina and tinea favosa at times invade these structures and lead to more or less complete disintegration—*onychomycosis.*

FIG. 38.

Atrophy of the Nails.

What is the treatment of atrophy of the nails?

Treatment will depend upon the cause. When it is due to eczema or psoriasis, appropriate constitutional and local remedies should be prescribed. If it is the result of syphilis, mercury and potassium iodide are to be advised. In onychomycosis—an exceedingly obstinate affection—the nails should be kept closely cut and pared, and a one- to five-grain solution of corrosive sublimate applied several times a day; a lotion of sodium hyposulphite, a drachm to the ounce, is also a valuable and safe application.

Atrophia Cutis.

(*Synonyms:* Atrophoderma; Atrophy of the Skin.)

What do you understand by atrophy of the skin?

By atrophy of the skin is meant an idiopathic or symptomatic wasting or degeneration of its component elements.

State the several conditions met with.

Glossy skin, general idiopathic atrophy of the skin, parchment skin, atrophic lines and spots, senile atrophy, and the atrophy following certain cutaneous diseases.

Describe glossy skin (atrophoderma neuriticum), and state the treatment.

Glossy skin is a rare condition following an injury or disease of the nerve. It is usually seen about the fingers. The skin is hairless, faintly reddish, smooth and shining, with a varnished and thin appearance, and with a tendency to fissuring. More or less severe and persistent burning pain precedes and accompanies the atrophy.

Protective applications are called for, the disease tending slowly to spontaneous disappearance.

Describe general idiopathic atrophy of the skin, and give the treatment.

General idiopathic atrophy of the skin is extremely rare, and is characterized by a gradual, more or less general, degenerative and quantitative atrophy of the skin structures, accompanied usually with more or less discoloration and pigmentation.

Treatment is palliative and based upon indications.

Describe parchment skin, and state the treatment.

Parchment skin (*xeroderma pigmentosum*, *angioma pigmentosum et atrophicum*) is a rare disease, the exact nature of which is not understood. It is characterized by the appearance of numerous disseminated, freckle-like pigment-spots, telangiectases, atrophied muscles, more or less shrinking and contraction of the integument, and followed, in most instances, by epitheliomatous tumors and ulceration, and finally death. It is usually slow in its course, begin-

ning in childhood and lasting for years. It is not infrequently seen in several children of the same family.

Treatment is palliative, consisting, if necessary, of the use of protective applications and of the administration of tonics and nutrients.

Describe atrophic lines and spots.

Atrophic lines and spots (*striæ et maculæ atrophicæ*) may be idiopathic or symptomatic, the lesions consisting of scar-like or atrophic-looking, whitish lines and macules, most commonly seen on the trunk. They are smooth and glistening. Slight hyperæmia usually precedes their formation. As an idiopathic disease its course is insidious and slow, and its progress eventually stayed. The so-called *lineæ albicantes*, resulting from the stretching of the skin produced by pregnancy or tumors, and from rapid development of fat, may be mentioned as illustrating the symptomatic variety.

In course of time the atrophy becomes less conspicuous.

Describe senile atrophy.

Senile atrophy is not uncommon, the atrophy resulting, as the name inferentially implies, from advancing age. It is characterized by thinning and wasting, dryness, and a wrinkled condition, with more or less pigmentation and loss of hair. Circumscribed pigmentary deposits and seborrhœa, with degeneration, are also noted.

What several diseases of the skin are commonly followed by atrophic changes?

Favus, lupus, syphilis, leprosy, scleroderma and morphœa.

CLASS VI.—NEW GROWTHS.

Keloid.

(*Synonyms:* Keloid of Alibert; Cheloid.)

Give a descriptive definition of keloid.

Keloid is a fibro-cellular new growth of the corium appearing as one or several variously-sized, irregularly-shaped, elevated, smooth, firm, pinkish or pale-reddish cicatriform lesions.

Describe the clinical appearance of keloid.

The growth begins as a small, hard, elevated, pinkish or reddish tubercle, increasing gradually, several months or years usually elapsing before the tumor reaches conspicuous size. When developed, it is one or more inches in diameter, is sharply defined, elevated, hard, rounded or oval, fungoid or crab-shaped, and firmly implanted in the skin. It is usually pinkish, pearl-white, or reddish, commonly devoid of hair, with no tendency to scaliness, and with, usually, several vessels coursing over it. In some instances it is tender, and it may be spontaneously painful.

The breast, especially over the sternal region, is a favorite site for its appearance. One, several or more may be present in the single case.

What course does keloid pursue?

Chronic; usually lasting throughout life. In rare instances spontaneous involution takes place.

State the etiology of keloid.

The causes are obscure. The growth usually takes its start from some injury or lesion of continuity; for instance, at the site of burns, cuts, acne and smallpox scars, etc.—*cicatricial keloid, false keloid;* or it may also, so it is thought, originate in normal skin—*spontaneous keloid, true keloid.*

What is the pathology of keloid?

The lesion is a connective-tissue new growth having its seat in the corium.

Is there any difficulty in the diagnosis of keloid?

No. It resembles hypertrophic scar; but this latter, which is essentially keloidal, never extends beyond the line of injury.

Give the prognosis.

The growth is persistent and usually irresponsive to treatment.

What is the treatment of keloid?

Usually palliative, consisting of the continuous application of an ointment such as the following:—

℞. Acidi salicylici, ... gr. x–xx
Emplast. plumbi,
Emplast. saponis, ... āā . . . . ʒiij
Petrolati, ... ʒij. M.

An ointment of ichthyol, twenty-five per cent. strength, rubbed in once or twice daily, is sometimes beneficial.

Operative measures, such as punctate and linear scarification, electrolysis and excision, are occasionally practised, but the results are rarely satisfactory and permanent; not infrequently, indeed, renewed activity in the progress of the growth is noted to follow.

Fibroma.

(*Synonyms:* Molluscum Fibrosum; Fibroma Molluscum.)

What do you understand by fibroma?

Fibroma is a connective-tissue new growth characterized by one or more sessile or pedunculated, pea- to egg-sized or larger, soft or firm, rounded, painless tumors, seated beneath and in the skin.

Describe the clinical appearances of fibroma.

The growth may be single, in which case it is apt to be pedunculated or pendulous, and attain considerable dimensions; as a result of weight or pressure surface-ulceration may occur. Or, and as commonly met with, the lesions are numerous, scattered over large surface, and vary in size from a pea to a cherry; the overlying skin being normal, pinkish or reddish, loose, stretched, hypertrophied or atrophied.

The tumors are painless. The general health is not involved.

What is the course of fibroma?

Chronic and persistent.

FIG. 39.

Fibroma. (*After Ocierlony.*)

What is the etiology of fibroma?

The cause is not known. Heredity is often noted. The affection is not common.

State the pathology of fibroma.

The growths are variously thought to have their origin in the connective tissue of the corium, or in that of the walls of the hair-sac, or in the connective-tissue framework of the fatty tissue. Recent tumors are composed of gelatinous, newly-formed connective tissue, and the older growths of a dense, firmly-packed, fibrous tissue.

From what growths is fibroma to be differentiated?

From molluscum contagiosum, neuroma and lipoma; the first is differentiated by its central aperture or depression, neuroma by its painfulness, and lipoma by its lobulated character and soft feel.

Give the prognosis of fibroma.

The disease is persistent, and irresponsive to all treatment save operative measures.

What is the treatment of fibroma?

Treatment consists, when desired and practicable, in the removal of the growths by the knife, or in large and pedunculated tumors by the ligature or by the galvano-cautery.

Neuroma.

Describe neuroma.

Neuroma of the skin is an exceedingly rare disease, characterized by the formation of variously-sized, usually numerous, firm, immovable and elastic fibrous tubercles containing new nerve-elements, and accompanied by violent, paroxysmal pain. Their growth is slow and usually progressive. Later they are painful upon pressure. They are limited to one region.

The tumors are seated in the corium, extending into the deeper structure, and consist of nerve-fibres, yellow elastic tissue, blood vessels and lymphoid cells.

In the two cases reported, excision of the nerve-trunk gave, in one instance, permanent relief; in the other the effect was only temporary.

Xanthoma.

(*Synonyms:* Vitiligoidea; Xanthelasma.)

What is xanthoma?

Xanthoma is a connective-tissue new growth characterized by the formation of yellowish, circumscribed, irregularly-shaped, variously-sized, non-indurated, flat or raised patches or tubercles.

Name the two varieties met with.

The macular or flat (*xanthoma planum*) and the tubercular (*xanthoma tuberculatum* or *tuberosum*). In some instances both varieties (*xanthoma multiplex*) are seen in the same individual.

Describe the clinical appearances of xanthoma planum.

The macular or flat variety is usually seen about the eyelids. It consists of one, several or more small or large, smooth, opaque, sharply-defined, often slightly raised, yellowish patches, looking not unlike pieces of chamois-skin implanted in the skin.

Describe the clinical appearances of xanthoma tuberosum.

The tubercular variety is commonly met with upon the neck, trunk and extremities. It occurs as small, raised, isolated, yellowish nodules, or as patches made up of aggregations of millet-seed-sized or larger tubercles. The lesions may be few or they may exist in great numbers.

What is the course of xanthoma?

Extremely slow; after reaching a certain development the growths may remain stationary.

State the etiology of xanthoma.

The causes are obscure. Jaundice not infrequently precedes and accompanies its development, especially in the tubercular variety. The disease is uncommon, and is usually seen in middle and advanced life, and more frequently in women.

What is the pathology of xanthoma?

It is a benign, connective-tissue new growth, with concomitant or subsequent, but usually partial, fatty degeneration.

Give the prognosis of xanthoma.

The condition is persistent, and usually irresponsive to all treatment save destructive or operative measures.

What is the treatment of xanthoma?

Treatment consists, in suitable cases, of excision; in some instances, electrolysis is serviceable.

Myoma.

(*Synonyms:* Myoma Cutis; Dermatomyoma; Liomyoma Cutis.)

Describe myoma.

The disease is rare, and consists usually of one or several (exceptionally numerous), variously-sized tumors of the skin, made up of smooth muscular fibres. They are flat, rounded, oval or pedunculated, and have a smooth surface and a pale-red color; as a rule, they are painless.

The growth is benign, and consists essentially of a new formation of unstriped muscular fibres; but it may also be composed largely of connective tissue (*fibromyoma*); or it may contain an abundance of bloodvessels (*myoma telangiectodes, angiomyoma*); or there may be lymphatic involvement (*lymphangiomyoma*).

Angioma.

(*Synonyms:* Nævus Vasculosus; Nævus Sanguineus.)

Give a definition of angioma.

Angioma is a congenital hypertrophy of the vascular tissues of the corium and subcutaneous tissue.

Into what two classes may angiomata be roughly grouped?

The flat (or non-elevated) and the prominent (or elevated).

Describe the flat, or non-elevated, variety of angioma.

The flat, or non-elevated, angioma (*nævus flammeus, nævus simplex, angioma simplex, capillary nævus*) may be pin-head- to bean-sized; or it may involve an area of several inches in diameter, and,

exceptionally, a whole region. It is of a bright- or dark-red color, and is met with most frequently about the face. In some instances it extends after birth, reaches a certain size and then remains stationary; occasionally, when involving a small area, it undergoes involution and disappears.

The so-called *port-wine mark* is included in this group.

Describe the prominent, or elevated, variety of angioma.

The prominent variety (*venous nævus, angioma cavernosum, nævus tuberosus*) is variously-sized, often considerably elevated, clearly-defined, compressible, smooth or lobulated, and of a dark, purple color; it may, also, be erectile and pulsating. The growth is usually a single formation, and is met with upon all parts of the body.

What is the pathology of angioma?

It is a new growth, consisting of a variable hypertrophy of the cutaneous and subcutaneous arterial and venous bloodvessels, with or without an increase of the connective tissue.

Give the treatment of angioma.

In some instances, especially in infants, painting the parts repeatedly with collodion or liquor plumbi subacetatis will act favorably. For well-established, small, capillary nævi electrolysis or puncturing with a red-hot needle or with a needle charged with nitric acid may be employed; for "port-wine mark" frequent and closely contiguous electrolytic punctures are occasionally followed by a slight diminution in color.

For the *prominent growths*, vaccination, the ligature, puncturing with the galvano-cautery and excision are variously resorted to.

Telangiectasis.

Describe telangiectasis.

Telangiectasis consists of a new growth or enlargement of the cutaneous capillaries, usually appearing during middle adult life, and seated, for the most part, about the face.

To what extent may telangiectasis develop?

It may be limited to a red dot or point, with several small radiat-

ing capillaries (*nævus arcneus, spider nævus*), or a whole region, usually the face, may show numerous scattered or closely-set capillary enlargements or new formations (*rosacea*). The latter is frequently associated with acne (*acne rosacea*).

The etiology is obscure.

What is the treatment of telangiectasis?

Destruction of the vessels by electrolysis or by the knife. (See treatment of acne rosacea.)

Lymphangioma.

(*Synonym:* Lymphangiectodes.)

Describe lymphangioma.

Lymphangioma is a rare disease, consisting of localized dilatations of the lymphatic vessels, appearing as discrete or aggregated pin-head or pea-sized, compressible, hollow, tubercle-like elevations, of a pinkish or faint lilac color, and occurring for the most part about the trunk. It is of slow but usually progressive development, and is unaccompanied by subjective symptoms.

A rare condition, probably a variety of this affection, with somewhat similar general features, but in which the lesions are more or less solid and somewhat painful, has been described under the name of *lymphangioma tuberosum multiplex*.

Treatment, when demanded, consists of operative measures.

Rhinoscleroma.

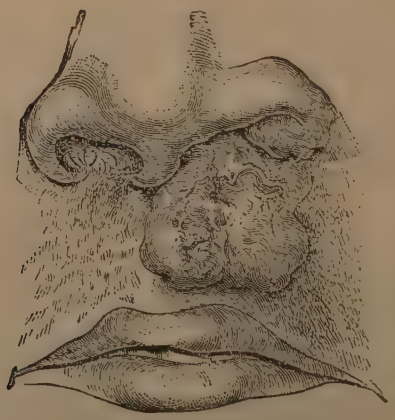
Describe rhinoscleroma.

Rhinoscleroma is a rare and obscure disease, slow but progressive in its course, characterized by the development of an irregular, dense and hard, flattened, tubercular, non-ulcerating, cellular new growth, having its seat about the nose and contiguous parts. The overlying skin is normal in color, or it may be light- or dark-brown or reddish. Marked disfigurement and closure, partial or complete, of the nasal

orifices gradually results. It is met with chiefly in Austria and Germany.

Treatment, consisting of partial or complete extirpation, is rarely permanent in its results, the disease tending to recur.

FIG. 40.



Rhinoscleroma. (*After Hebra.*)

Lupus Erythematosus.

(*Synonyms:* Lupus Erythematodes; Lupus Sebaceus; Seborrhœa Congestiva.)

What is lupus erythematosus?

Lupus erythematosus may be roughly defined as a small-celled new growth, characterized by one, several or more circumscribed, variously-sized and shaped, pinkish or dark red patches, covered slightly, and more or less irregularly, with adherent grayish or yellowish scales.

Upon what parts is lupus erythematosus observed?

Its common site is the face, usually the nose and cheeks, with a tendency toward symmetry; it is often limited to these parts, but may occasionally be seen upon other regions, more especially the lips, ears and scalp.

Describe the symptoms of lupus erythematosus.

Usually the disease begins as one or several rounded, circumscribed, pin-head- to pea-sized lesions; slightly scaly, somewhat elevated, and of a pinkish, reddish or violaceous color. They slowly, or somewhat rapidly, increase in area, and after attaining variable size remain stationary; or they may progress and coalesce, and in this manner sooner or later involve considerable surface. The patches are sharply defined against the sound skin by an elevated border, while the central portion is somewhat depressed and usually atrophic. More or less thickening and infiltration are observed. *There is no tendency to ulceration.* The scaliness is, as a rule, scanty. The gland-ducts are enlarged, patulous or plugged with sebaceous and epithelial matter.

The subjective symptoms of burning and itching are usually slight and often wanting.

What course does lupus erythematosus pursue?

As a rule, the disease is persistent, although somewhat variable. At times the patches retrogress, involution taking place with or without slight sieve-like atrophy or scarring.

State the causes of lupus erythematosus.

The etiology is obscure. It is essentially a disease of adult and middle age; is more common in women, and more frequent in those having a tendency to disorders of the sebaceous glands. It may, in fact, begin as a seborrhœa.

What is the pathology?

It was formerly considered a new growth, but recent opinion tends toward regarding it as a chronic inflammation of the cutis, superinducing degenerative and atrophic changes. The disease in many cases originates in the sebaceous glands. There is no tendency to pus formation.

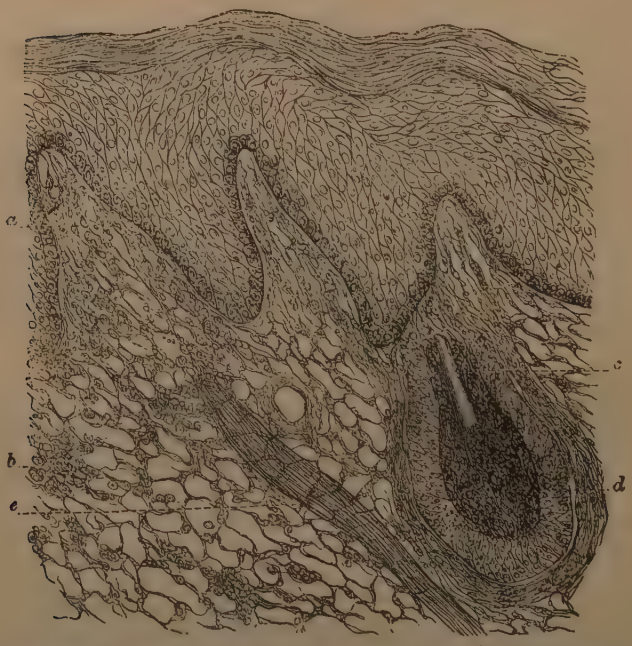
Is there any difficulty in the diagnosis of lupus erythematosus?

As a rule, not, as the features of the disease—the sharply circumscribed outline, the reddish or violaceous color, the elevated border, the tendency to central depression and atrophy, the plugged up or patulous sebaceous ducts, the adherent grayish or yellowish scales, together with the region attacked (usually the nose and cheeks)—are characteristic.

State the prognosis of lupus erythematosus.

The disease is curable, but often extremely rebellious to treatment; on the other hand, some cases yield readily, and occasionally a tend-

FIG. 41.



Vertical section of skin from a patch of Lupus Erythematosus. (*After Neumann.*)
a, enlarged papillæ, with cell infiltration; *b*, collection of cells; *c*, hair (cut off); *d*, sebaceous gland, with infiltration; *e*, arrector pili.

ency to spontaneous disappearance is observed. The disease in no wise compromises the general health.

How is lupus erythematosus to be treated?

The general health is to be looked after and systemic treatment

prescribed, if indicated. As a rule, constitutional remedies exert little, if any, influence, but exceptionally, cod-liver oil, arsenic, phosphorus or potassium iodide proves of service.

Locally, according to the case, soothing remedies, stimulating applications and destruction of the growth by caustics or operative measures are to be employed. (*Try the milder applications first.*)

Mention the stimulating applications commonly employed.

Washing the parts energetically with tincture of sapo viridis, rinsing and applying a soothing ointment, such as cold cream or vaseline.

A lotion containing zinc sulphate and potassium sulphuret thoroughly dabbed on the parts morning and evening :—

℞. Zinci sulphatis,
Potassii sulphureti, ... aa . . . ʒss-ʒij
Alcoholis, ... fʒj
Glycerinæ, ... fʒss
Aquæ, ... fʒiij. M.

Lotions of ichthyol and of resorcin, five to sixty grains to the ounce.

Painting the patches with pure carbolic acid once every two or three days.

The continuous application of mercurial plaster.

Sulphur and tar ointments, officinal strength or weakened with lard, and also the following :—

℞. Ol. cadini,
Alcoholis,
Saponis viridis, ... aa . . . . . ʒiiss. M.

(This is to be rubbed in, in small quantity, once or twice daily, and later a soothing remedy applied.)

When are destructive and operative measures justifiable?

In obstinate, sluggish and long persistent patches, and then only after other methods of treatment have failed. (Remember that the disease *may* disappear in course of time spontaneously, and occasionally *without leaving a scar.*)

State the methods of treatment commonly used in obstinate, sluggish and persistent patches of lupus erythematosus.

Cauterization—with nitrate of silver, with applications of pyrogallic acid in ointment or in liquor gutta-perchæ, fifteen to thirty

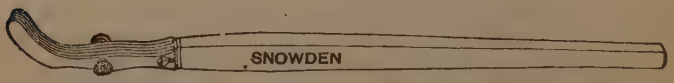
FIG. 42.

Single Scarifier.

per cent. strength, and with solutions (cautiously employed) of caustic potash, and exceptionally with the galvano-cautery.

Operative—scarification, either punctate or linear, and erasion with the curette. (See treatment of lupus vulgaris.)

FIG. 43.



Multiple Scarifier. (*As modified by Van Harlingen.*)

What operative method of treatment promises the best result with the least amount of scarring?

The method by linear scarification. It is a tedious one, but the results, especially in a cosmetic sense, are gratifying.

Lupus Vulgaris.

(*Synonyms:* Lupus; Lupus Exedens; Lupus Vorax; Tuberculosis of the Skin.)

What do you understand by lupus vulgaris?

Lupus vulgaris is a cellular new growth, characterized by variously-sized, soft, reddish-brown, papular, tubercular and infiltrated patches, usually terminating in ulceration and scarring.

Upon what region is lupus vulgaris usually observed?

The face, especially the nose, but any part may be invaded. The area involved may be small or quite extensive, usually the former.

At what age is the disease noted?

In many cases it begins in childhood or early adult life, but as it is persistent and tends to relapse, it may be met with at any age.

Describe the earlier symptoms of lupus vulgaris.

The disease begins by the development of several or more pin-head to small pea-sized, deep-seated, brownish-red or yellowish tubercles, having their seat in the deeper part of the corium, and which are somewhat softer and looser in texture than normal tissue. As the disease progresses, variously-sized and shaped aggregations or patches result, covered with thin and imperfectly-formed epidermis.

What changes do the lupus tubercles or infiltrations undergo?

The lesions, having attained a certain size or development, may remain so for a time, but sooner or later retrogressive changes occur: the matured papules or tubercles, or infiltrated patches, slowly disappear by absorption, fatty degeneration taking place, leaving an exfoliating, atrophic or cicatricial tissue—*lupus exfoliativus;* or disintegration and destruction result, terminating in ulceration—*lupus exedens, lupus exulcerans.* This latter is the usual course.

Describe the clinical appearances and behavior of the lupus ulcerations.

They are rounded, shallow excavations, with soft and reddish borders. In exceptional instances exuberant granulations appear—*lupus hypertrophicus;* or papillary outgrowths are noted—*lupus verrucosus.* The ulcerations secrete a variable amount of pus, usually slight in quantity, which leads to more or less crust formation; later, however, cicatricial tissue, generally of a *firm and fibrous* character, results.

In what manner does the disease spread?

The patches spread by the appearance of new papules, or infiltrations at the peripheral portion. New islets and areas of disease may continue to make their appearance from time to time, usually upon contiguous parts.

Are the mucous membranes of the mouth, throat and larynx ever involved?

In some instances, and either primarily or secondarily.

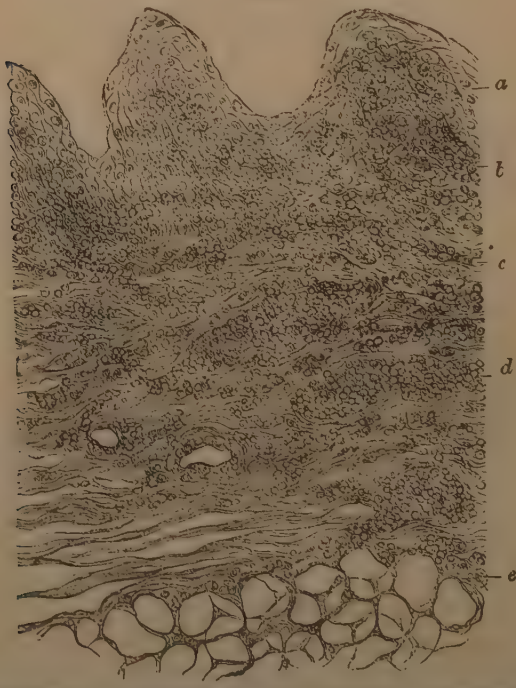
Is the bone tissue ever involved in lupus vulgaris?

No.

What course does lupus vulgaris pursue?

It is slowly but, as a rule, steadily progressive. Several years or more may elapse before the area of disease is conspicuous.

FIG. 44.



Vertical section of a lupus tubercle, greatly magnified. (*After Neumann.*)

a, rete mucosum; *b*, cell-infiltration in the papillæ; *c*, and *d*, accumulations of cells in the upper and lower layers of the corium; *e*, cell infiltration in the panniculus adiposus.

What is the cause of lupus vulgaris?

It is thought to be due to the invasion of the cutaneous structures by the tubercle bacillus; in short, a tuberculosis of the skin. It is

not infrequently observed in the strumous and debilitated. It is entirely independent of syphilis.

What is the pathology of lupus vulgaris?

According to recent investigations, the infiltrations of lupus are due chiefly to cell-proliferation and outgrowth from the protoplasmic walls and adventitia of the bloodvessels and lymphatics. The fibrous-tissue network, vessels and a portion of the cell infiltration are thus produced, the fixed and wandering connective-tissue cells of the inflamed stroma of the cutis being responsible for the other portion of the new growth (Robinson).

State the diagnostic features of lupus vulgaris.

In a typical, developed patch of lupus are to be seen:—cicatricial formation, usually of a fibrous and tough character; ulcerations; the yellowish-brown tubercles and infiltration; and the characteristic soft, small, yellowish or reddish-brown, cutaneous and subcutaneous points and papules.

How does the tubercular syphiloderm differ from lupus vulgaris?

The tubercular syphiloderm is much more rapid in its course, the ulceration is deeper and the discharge copious and often offensive; the scarring is soft, and, compared to the amount of ulceration, but slightly disfiguring; and it is, for obvious reasons, a disease of adult or late life. The history, together with other evidences of previous or concomitant symptoms of syphilis, will often aid in the differentiation.

How does epithelioma differ from lupus vulgaris?

The edges of the epitheliomatous ulcer are hard, elevated and waxy; the base is uneven, the secretion thin, scanty and apt to be streaked with blood; the ulceration usually starts from one point, and is often painful; the tissue destruction may be considerable; there is little, if any, tendency to the formation of cicatricial tissue; and, finally, it is usually a disease of advanced age.

In what respects does lupus erythematosus differ from lupus vulgaris?

Lupus erythematosus has no papules, tubercles or ulceration.

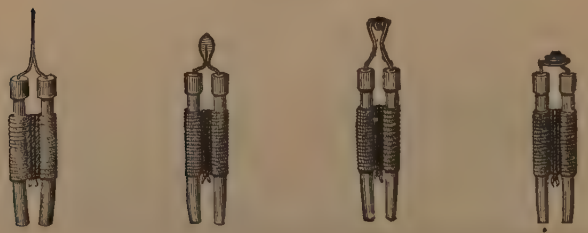
How does acne rosacea differ from lupus vulgaris?

Acne rosacea is characterized by hyperæmia, dilated vessels, papules, pustules, the absence of ulceration, and a different history.

State the prognosis of lupus vulgaris.

Lupus vulgaris is always a chronic disease, often exceedingly

FIG. 45.



Galvano-cautery Needle, Knife and Spiral Points. (*As devised by Bésnier.*)

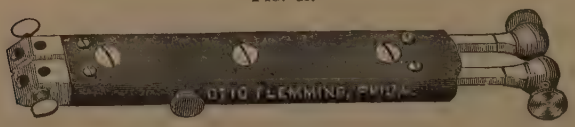
rebellious to treatment, and one that calls for a guarded opinion. Relapses are not uncommon.

The general health usually remains good, but in some instances death by tuberculosis of the lungs has been noted.

Is external or internal treatment called for in lupus vulgaris?

Always external, and not infrequently constitutional also.

FIG. 46.



Holder for Galvano-cautery Instruments.

What is the constitutional treatment?

The general health must be cared for; good, nutritious food, fresh air and out-door exercise, together with, in many cases, the administration of such remedies as cod-liver oil, potassium iodide, iron and quinine, are of therapeutic importance.

State the object of local treatment.

The destruction or removal of the diseased tissue.

What methods are commonly employed for the removal or destruction of lupus tissue?

Cauterization, scarification, erasion and excision are variously

FIG. 47.

Cautery Battery.

practised; the particular method depending, in great measure, upon the extent of the disease, the part involved, and other circumstances.

Name the several caustics, and state how they are employed.

Nitrate of silver stick; this is applicable to small areas or discrete lesions, and is thoroughly bored into the parts. The operation is repeated every several days.

Pyrogallic acid, used as an ointment :—

℞. Ac. pyrogallici, ... ℥ij
Emplast. plumbi, ... ℥j
Cerat. resinæ, ... ℥v. M.

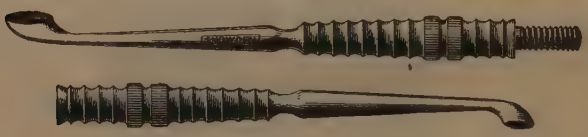
It is applied for one or two weeks. Every several days the parts are poulticed, the slough thus removed, and the ointment reapplied, and so on until the diseased tissue has been destroyed. It is useful in those cases in which a mild and comparatively painless caustic is advisable.

Arsenious acid, employed as a paste—

℞. Ac. arseniosi, ... gr. xx
Pulv. acaciæ, ... ℥j
Aquæ, q. s. M.

It is painful but thorough ; it is permitted to remain on for twenty-four to forty-eight hours, and the parts then poulticed until the

Fig. 48.



Double Curette.

slough comes away, after which a simple dressing is employed. Its application is advisable for a small area only as absorption is possible.

Galvano-cautery.—The diseased tissue is destroyed by numerous punctures with a red-heated point or by linear incision with a red-heated knife. It is often a practicable and satisfactory method.

Describe the operative measures employed in the removal of lupus tissue.

Linear Scarification.—The parts are thoroughly cross-tracked, cutting through the diseased tissue, and subsequently a simple salicylated ointment applied. The operation is repeated from time to

time, and as a result the new growth undergoes retrogressive changes, and cicatrization takes place.

Punctate Scarification.—By means of a simple or multiple-pointed instrument numerous closely-set punctures are made, and repeated from time to time, usually with the same action and result as from linear scarification.

Erasion.—The parts are thoroughly scraped with a curette, and a supplementary caustic application made, either with caustic potash or several days' use of the pyrogallic-acid ointment. The result is usually satisfactory.

Excision.—This is an effective method if the disease consists of a small pea- or bean-sized circumscribed patch.

State the advantages of the methods of treatment by linear and punctate scarification.

Healthy tissue is not sacrificed, and the resulting scars are usually smooth and least disfiguring. The same holds true, but to a much less extent, with the method by erasion.

Scrofuloderma.

What do you understand by scrofuloderma?

The term scrofuloderma is applied to those peculiar suppurative and ulcerative conditions of the skin occurring in strumous subjects.

How does the common type of scrofuloderma begin?

The most common type of scrofulous ulceration or involvement of the skin usually results by extension from an underlying caseating and suppurating lymphatic gland; or it may have its origin as subcutaneous tubercles independently of these structures. It tends to spread, and may involve an area of one or several inches.

What are the clinical appearances and behavior of scrofulous ulceration?

It is usually superficial, has thin, red, undermined edges of a violaceous color, and an irregular base with granulations covered scantily with pus. As a rule, it spreads gradually as a simple ulceration, with but slight, if any, outlying infiltration. Subjective phenomena

of a painful or troublesome character are rarely present. Its course is usually progressive but slow and chronic.

Other symptoms of a scrofulous nature are commonly to be found.

State the etiology of scrofuloderma.

Heredity, insufficient and unwholesome food, impure air, and the like, are predisposing. At present, a specific bacillus (the tubercle bacillus) is thought to be the immediate exciting cause.

The disease usually appears in childhood or early adult life, and not infrequently follows in the wake of some severe systemic disease. It is thought by some authorities to be identical in nature with lupus.

How is scrofuloderma to be differentiated from lupus vulgaris and syphilis?

By the peculiar character of the scrofulous ulceration, the absence of outlying tubercles and infiltration, together with its history, course, and often the presence of other strumous symptoms.

State the prognosis of scrofuloderma.

It usually responds to appropriate measures of treatment. As a rule, there is but little, if any, tendency to spontaneous cure.

What is the treatment of scrofuloderma?

Constitutional remedies, such as cod-liver oil, iodide of iron or other ferruginous tonics, together with good food and pure air; calx sulphurata, in one-tenth grain doses every three hours, and phosphorus one-hundredth to one-fiftieth of a grain three times daily, are also of benefit in some cases.

The local treatment consists in thorough curetting and the subsequent application of a mildly stimulating ointment. The several other plans of external treatment employed in lupus (*q. v.*) are also variously practised.

Ainhum.

Describe ainhum.

Ainhum is a disease of the African race, met with chiefly in Brazil, the West Indies, and Africa, and consists of a slow but gradual linear strangulation of one or more of the toes, especially the smallest, resulting, eventually, in spontaneous amputation. The

affected toes themselves undergo fatty degeneration, often with increase in size, and are, when strangulation is well advanced, considerably misshapen. The nature of the disease is obscure.

Treatment consists, in the early stages, of incision through the constricting band; when the disease is well advanced, amputation is the sole recourse.

Podelcoma.

(*Synonyms:* Fungous Foot of India; Madura Foot; Mycetoma.)

Describe podelcoma.

It is a disease involving usually the foot, and is met with chiefly in India. It is characterized by swelling and the formation of tubercular or nodular lesions which break down and form the external openings of sinuses which lead to the interior of the affected part. These discharge, and are studded with, whitish granules or black, roe-like masses, mixed with a sanious or sero-purulent fluid. The whole part is gradually disintegrated, the process lasting indefinitely. Its nature is obscure; it is thought to be due to a fungus.

Treatment consists in the early stages, when the disease is limited, of thorough curetting and cauterization; later, after the part is more or less involved, amputation, at a point well up beyond the disease becomes necessary.

Perforating Ulcer of the Foot.

Describe perforating ulcer of the foot.

Perforating ulcer of the foot is a rare disease, consisting of an indolent and usually painless sinus leading down to diseased bone. The external opening, which is through the centre of a corn-like formation, is small, and may or may not show the presence of granulations. The affected part is commonly more or less anæsthetic and of subnormal temperature. One or several may be present, either on one or both feet. The most common site is over the articulation of the metatarsal bone with the phalanx of the first or last toe. The disease is dependent upon impairment or degeneration of the central, truncal or peripheral nerves.

What is to be said in regard to the prognosis and treatment?

Treatment, which is, as a rule, unsatisfactory, consists in the maintenance of absolute rest, and the use of antiseptic and stimulating applications. Amputation is also resorted to, but even this is at times futile, as a new sinus may appear upon the stump.

Syphilis Cutanea.

(*Synonyms:* Syphiloderma; Dermatosyphilis; Syphilis of the Skin.)

In what various types may syphilis manifest itself upon the integument?

Syphilis may show itself as a macular, papular (rarely vesicular), pustular, bullous, tubercular and gummatous eruption; or the eruption may be, in a measure, of a mixed type.

In what respects do the early (or secondary) eruptions of syphilis differ from those following several years or more after the contraction of the disease?

The early or secondary eruptions are more or less generalized, with rarely any attempt at special configuration. Their appearance is often preceded by symptoms of systemic disturbance, such as fever, loss of appetite, muscular pains and headache; and accompanied by concomitant signs of the disease, such as enlargement of the lymphatic glands, sore throat, mucous patches, falling of the hair and rheumatic pains.

State the distinguishing characters of the late eruptions.

The late eruptions (those following one or more years after the contraction of the disease) are usually of tubercular, gummatous or ulcerative type; are limited in extent, and have a marked tendency to appear in circular, semicircular or crescentic forms or groups, Pain in the bones, bone lesions and other symptoms may or may not be present.

What is the color of syphilitic lesions?

Usually, a dull brownish-red or ham-red, with at times a yellowish cast.

Are there any subjective symptoms in syphilitic eruptions?

As a rule, no; but in exceptional instances of the generalized eruptions, more especially in negroes, there may be slight itching.

Describe the macular, or erythematous, eruption of syphilis.

The *macular syphiloderm* is a general eruption, showing itself usually six or eight weeks after the appearance of the chancre. It consists of small or large, commonly pea- or bean-sized, rounded or irregularly-shaped, not infrequently slightly raised, macules. When well established they do not entirely disappear under pressure. At first a pale-pink or dull, violaceous red, they later become yellowish or coppery. The eruption is generally profuse; the face, backs of the hands and feet may escape. It persists several weeks or one or two months; as a rule, it is rapidly responsive to treatment.

How would you distinguish the macular syphiloderm from measles, rötheln and tinea versicolor?

Measles is to be differentiated by its catarrhal symptoms, fever, form and situation of the eruption; rötheln, by its small, roundish, confluent pinkish or reddish patches, its precursory pyrexic symptoms, its epidemic nature, and short duration; tinea versicolor by its scaliness, peripheral growth, distribution and history.

And, finally, by the absence or presence of other symptoms of syphilis.

What several varieties of the papular eruption of syphilis are met with?

There are two forms of the papular eruption—the small and large; those of the latter type may undergo various modifications.

Describe the small-papular eruption of syphilis.

The *small-papular syphiloderm* (*miliary papular syphiloderm*) usually shows itself in the third or fourth month of the disease, and consists of a more or less generalized eruption of disseminated or grouped, firm, rounded or acuminated pin-head to millet-seed-sized papules, with smooth or slightly scaly summits, and in some lesions showing pointed pustulation. Scattered minute pustules and some large papules are usually present. The eruption is profuse, most abundant upon the trunk and limbs; and in the early part of the outbreak is of a bright- or dull-red color, later assuming a violaceous or

brownish tint. It runs a chronic course, is somewhat rebellious to treatment, and displays a tendency to relapse.

How would you distinguish the small-papular syphiloderm from keratosis pilaris, psoriasis punctata, papular eczema, and lichen ruber?

The distribution and extent of the eruption, the color, the grouping, with usually the presence of pustules and large papules and other concomitant symptoms of syphilis, are points of difference. Pustules never occur in the several diseases named.

FIG. 49.

Moist Papules. (*After Müller.*)

Describe the large-papular eruption of syphilis.

The *large-papular syphiloderm* (or *lenticular syphiloderm*) is a common form of cutaneous syphilis, appearing usually in the first six or eight months, and consists of a more or less generalized eruption of pea- to dime-sized or larger, flat, rounded or oval, firmly-seated, more or less raised, dull-red papules; with at first a smooth surface, which later usually becomes covered with a film of exfoliating epidermis. The papules, as a rule, develop slowly, remain stationary several weeks or a few months, and then pass away by absorption, leaving slight pigmentation, which gradually fades; or they may undergo certain modifications. In most cases it responds rapidly to treatment.

What modifications do the papules of the large-papular syphiloderm sometimes undergo?

They may change into the moist papule and squamous papule.

Describe the moist papule of syphilis.

The change into the moist papule (also called *mucous patch*, *flat condyloma*) is not uncommon where opposing surfaces and natural folds of skin are subjected to more or less contact, as about the nates, the scroto-femoral regions, umbilicus, axillæ and beneath the mammæ. The dry, flat papules gradually become moist and covered with a grayish, sticky, mucoid secretion; several may coalesce and form large, flat patches. They may so remain, or they may become hypertrophic, warty or papillomatous, with more or less crust formation (*vegetating syphiloderm*).

FIG. 50.

Palmar Syphiloderm. (*After Keyes.*)

Describe the squamous papule of syphilis.

This tendency of the large-papular eruption to become scaly, when exhibited, is more or less common to all papules, and constitutes the *squamous* or *papulo-squamous syphiloderm* (improperly called *psoriasis syphilitica*). The papules become somewhat flattened and are covered with dry, grayish or dirty-gray, somewhat adherent scales. The scaling, as compared to that of psoriasis, is, as a rule, relatively slight. The eruption may be general, as usually the case in the earlier months of the disease, or it may appear as a relapse or a later manifestation, and be limited in extent.

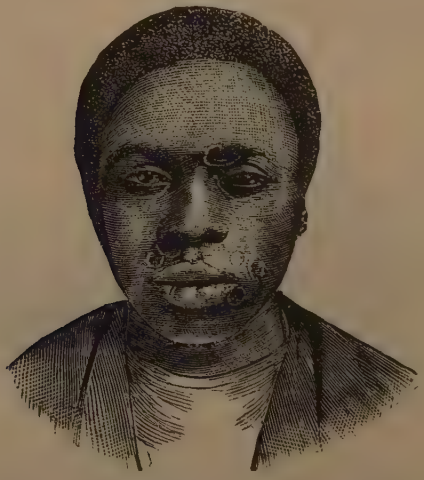
As a limited eruption it is most frequently seen on the palms and

soles—the *palmar and plantar syphiloderm.* Occurring on these parts it is often rebellious to treatment.

How are you to distinguish the papulo-squamous syphiloderm from psoriasis?

In psoriasis the eruption is more inflammatory, and usually bright red; the scales whitish or pearl-colored and, as a rule, abundant. It is generally seen in greater profusion upon certain parts, as, for instance, the extensor surfaces, especially of the elbows and knees. It is not infrequently itchy, and, moreover, presents a different history.

FIG. 51.



Annular Syphiloderm. (*After I. E. Atkinson.*)

In the syphilitic eruption some of the papules almost invariably remain perfectly free from any tendency to scale formation; there is distinct deposit or infiltration, and the lesions are of a dark, sluggish red or ham tint; and, moreover, concomitant symptoms of syphilis are usually present.

Describe the annular eruption of syphilis.

The *annular syphiloderm* (*circinate syphiloderm*) is observed usually in association with the large-papular eruption, and consists of

several or more variously sized, ring-like lesions, with a distinctly elevated solid ridge or wall peripherally and a more or less flattened centre. It is commonly seen about the mouth, forehead and neck. The lesion appears to have its origin from an ordinary, usually scaleless or slightly scaly, large papule, the central portion of which has been incompletely formed or has become sunken and flattened. The manifestation is rare, and is seen most frequently in the negro.

What several varieties of the pustular syphiloderm are met with?

The small acuminated-pustular syphiloderm, the large acuminated-pustular syphiloderm, the small flat-pustular syphiloderm, and the large flat-pustular syphiloderm.

Describe the small acuminated-pustular eruption of syphilis.

The *small acuminated-pustular syphiloderm (miliary pustular syphiloderm)* is an early or late secondary eruption, commonly encountered in the first six or eight months of the disease. It consists of a more or less generalized, disseminated or grouped, millet-seed-sized, acuminated pustules, usually seated upon dull-red, papular, elevations. The eruption is, as a rule, profuse, and usually involves the hair-follicles. The pustules dry to crusts, which fall off and are often followed by a slight, fringe-like exfoliation around the base, constituting a grayish ring or collar. Minute pinpoint atrophic depressions or stains are left, which gradually become less distinct. Scattered large pustules, and sometimes papules, are not infrequently present.

Describe the large acuminated-pustular eruption of syphilis.

The *large acuminated-pustular syphiloderm (acne-form syphiloderm, variola-form syphiloderm)* is a more or less generalized eruption, occurring usually in the first six or eight months of the disease. It consists of small or large pea-sized, disseminated or grouped, acuminated or rounded pustules, resembling the lesions of acne and variola. They develop slowly or rapidly, and at first may appear more or less papular. They dry to somewhat thick crusts, and are seated upon superficially ulcerated bases.

It pursues, as a rule, a comparatively rapid and benign course. In relapses the eruption is usually more or less localized.

How would you distinguish the large acuminated-pustular syphiloderm from acne and variola?

In acne the usual limitation of the lesions to the face or face and shoulders, the origin, more rapid formation and evolution of the individual lesions, and the chronic character of the disease, are usually distinctive points.

In variola, the intensity of the general symptoms, the shot-like beginning of the lesions, their course, the umbilication, and the definite duration, are to be considered.

The presence or absence of other symptoms of syphilis has, in obscure cases, an important diagnostic bearing.

Describe the small flat-pustular eruption of syphilis.

The *small flat-pustular syphiloderm* (*impetigo-form syphiloderm*) consists of a more or less generalized, pea-sized, flat or raised, discrete, irregularly-grouped, or in places confluent, pustules, appearing usually in the first year of the disease. The pustules dry rapidly to yellow, greenish-yellow, or brownish, more or less adherent, thick, uneven, somewhat granular crusts, beneath which there may be superficial or deep ulceration; where the lesions are confluent a continuous sheet of crusting forms. The eruption is often scanty. It is most frequently observed about the nose, mouth, hairy parts of the face and scalp, and about the genitalia, frequently in association with papules on other parts.

Are you likely to mistake the small flat-pustular syphiloderm for any other eruption?

Scarcely; but when upon the scalp, it may bear rough resemblance to pustular eczema, but the erosion or ulceration will serve to differentiate. Moreover, concomitant symptoms of syphilis are to be looked for.

Describe the large flat-pustular eruption of syphilis.

The *large flat-pustular syphiloderm* (*ecthyma-form syphiloderm*) consists of a more or less generalized, scattered eruption, of large pea- or dime-sized, flat pustules. They dry rapidly to crusts. The bases of the lesions are a deep-red or copper color. Two types of the eruption are met with.

In one type—the superficial variety—the crust is flat, rounded or ovalish, of a yellowish-brown or dark-brown color, and seated upon

a superficial erosion or ulcer. The lesions are usually numerous, and most abundant on the back, shoulders and extremities. It appears, as a rule, within the first year, and generally runs a benign course.

In the other type—the deep variety—the crust is greenish or blackish, is raised and more bulky, often conical and stratified, like an oyster shell—*rupia;* beneath the crusts may be seen rounded or irregular-shaped ulcers, having a greenish-yellow, puriform secretion. It is usually a late and malignant manifestation.

FIG. 52.

Rupia. (*After Tilbury Fox.*)

How would you differentiate the large flat-pustular syphiloderm from ecthyma?

The syphilitic lesions are more numerous, are scattered, are attended with superficial or deep ulceration, and followed by more or less scar-formation. Moreover, the history, and presence or absence of other symptoms of syphilis have an important diagnostic value.

Describe the bullous eruption of syphilis.

The *bullous syphiloderm* (of acquired syphilis) is a rare and usually late eruption, appearing in the form of discrete, disseminated,

rounded or ovalish, pea- to walnut-sized, partially or fully distended, blebs. The serous contents soon become cloudy and puriform. In some cases the lesions are distinctly pustular from the beginning. The crust, which soon forms, is of a yellowish-brown or dark green color, and may be thick and stratified (*rupia*), as in the deep variety of the large flat-pustular syphiloderm. The erosions or ulcers beneath the crusts secrete a greenish-yellow fluid. It is a malignant type of eruption, and is usually seen in broken-down subjects.

It is not an uncommon manifestation of hereditary syphilis (*q. v.*) in the newborn.

How is the bullous syphiloderm to be differentiated from other pemphigoid eruptions?

By the gravity of the disease, the accompanying ulceration, the course and history; and by other evidences, past or present, of syphilis.

Describe the tubercular eruption of syphilis.

The *tubercular syphiloderm* (*syphiloderma tuberculosum*) may exceptionally occur within the first year as a more or less generalized eruption. As a rule, however, it is a late manifestation, at times appearing many years after the initial lesion; is limited in extent, and shows a decided tendency to occur in groups, often forming segments of circles.

It consists (as a late, limited manifestation) of several or more firm, circumscribed, deeply-seated, smooth, glistening or slightly scaly elevations; rounded or acuminated in shape, of a yellowish-red, brownish-red or coppery color and usually of the size of small or large peas. Several groups may coalesce, and a serpiginous tract result (*serpiginous tubercular syphiloderm*). The lesions develop slowly, and are sluggish in their course, remaining, at times, for weeks or months, with but little change. As a rule, however, they terminate sooner or later, either by absorption, leaving a more or less permanent pigment stain with or without slight atrophy (*non-ulcerating tubercular syphiloderm*), or by ulceration (*ulcerating tubercular syphiloderm*).

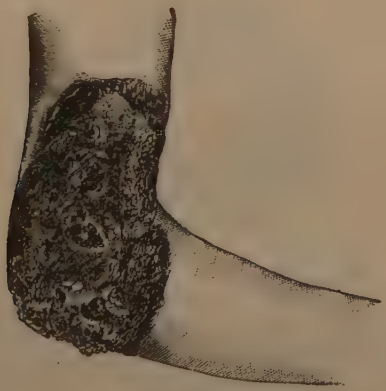
Describe the ulcerating tubercular syphiloderm.

The ulceration may be superficial or deep in character, and involve

several or all of the lesions forming the group. The patch may consist, therefore, of small, discrete, punched-out ulcers, or of one or more continuous ulcers, segmental, crescentic or serpiginous in shape. They are covered with a gummy, grayish-yellow deposit or they may be crusted. As the ulcerative changes take place, new lesions, especially about the periphery of the group or patch, may appear from time to time.

In some instances, more especially about the scalp, the surface of the ulcerations becomes papillary or wart-like, with an offensive, yellowish, puriform secretion (*syphilis cutanea papillomatosa*).

FIG. 53.



Ulcerating Tubercular Syphiloderm. (*After Keyes.*)

From what diseases is the tubercular syphiloderm to be differentiated?

From tubercular leprosy, epithelioma and lupus vulgaris, especially the last-named.

What are the chief diagnostic characters of the tubercular syphiloderm?

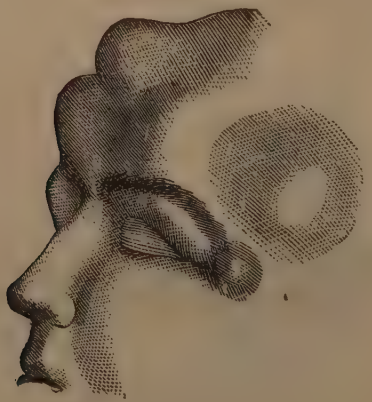
The tendency to form segments, crescents and circles, the color, the pigmentation and ulceration, the history, and not infrequently marks or scars of former eruptions.

Describe the gummatous eruption of syphilis.

The *gummatous syphiloderm* (*syphiloderma gummatosum*, *gumma*, *syphiloma*) is usually a late manifestation, showing itself as one, several or more painless or slightly painful, rounded or flat, more or less circumscribed tumors; they are slightly raised, moderately firm, and have their seat in the subcutaneous tissue. They tend to break down and ulcerate.

The lesion begins usually as a pea-sized deposit or infiltration, and grows slowly or rapidly; when fully developed it may be the size of

FIG. 54.



Gummata. (*After Jullien.*)

a walnut, or even larger. The overlying skin becomes gradually reddish. At first firm, it is later soft and doughy. It may, even when well advanced, disappear by absorption, but usually tends to break down, terminating in a small or large, deep, punched-out ulcer.

Does the gummatous syphiloderm invariably appear as a rounded well-defined tumor?

No. Exceptionally, instead of a well-defined tumor, it may appear as a more or less diffused patch of infiltration, leading eventually to extensive superficial or deep ulceration.

From what formations is the gummatous syphiloderm to be differentiated?

From furuncle, abscess, and sebaceous, fatty and fibroid tumors.

Attention to the origin, course, and behavior of the lesion, together with a history, must all be considered in doubtful cases.

What is to be said in regard to the character and time of appearance of the cutaneous manifestations of hereditary syphilis?

In a great measure the cutaneous manifestations of hereditary syphilis are essentially the same as observed in acquired syphilis. They are usually noted to occur within the first three months of extra-uterine life. The macular, papular, and bullous eruptions are most common.

Describe these several cutaneous manifestations of hereditary syphilis.

The *macular* (erythematous) eruption begins as large or small, bright- or dark-red macules, later presenting a ham or café-au-lait appearance. At first they disappear upon pressure. The lesions are more or less numerous, usually become confluent, especially about the folds of the neck, about the genitalia and buttocks; in these regions resembling somewhat erythema intertrigo.

The *papular* eruption is observed in conjunction with the erythematous manifestation, or it occurs alone. The lesions are but slightly elevated, and seem to partake of the nature of both macules and papules. They are usually discrete, and rarely abundant; they may become decked with a film-like scale, and at the various points of junction of skin and mucous membrane, and in the folds, they become abraded and macerated, developing into *moist papules.*

The *bullous* eruption consists of variously-sized, more or less purulent blebs, and is usually met with at or immediately following birth. It is most abundant about the hands and feet Macules and papules are often interspersed. There may be superficial or deep ulceration underlying the bullæ.

What other symptoms in addition to the cutaneous manifestations are noted in hereditary syphilis in the newborn?

Mucous patches, and sometimes ulcers, in the mouth and throat;

hoarseness, as shown by the peculiar cry, and indicating involvement of the larynx; snuffles, a sallow and dirty appearance of the skin, loss of flesh and often a shriveled or senile look.

What is the pathology of cutaneous syphilis?

The syphilitic deposit consists of round-cell infiltration. The mucous layer, the corium, and in the deep lesions the subcutaneous connective tissues also, are involved in the process. The infiltration disappears by absorption or ulceration.

Give the prognosis of cutaneous syphilis.

In *acquired syphilis*, favorable; sooner or later, unless the whole system is so profoundly affected by the syphilitic poison that a fatal ending ensues, the cutaneous manifestations disappear, either spontaneously or as the result of treatment. The earlier eruptions will often pass away without medication, but treatment is of material aid in moderating their severity and hastening their disappearance, and is to be looked upon as essential; in the late syphilodermata treatment is indispensable. In the large pustular, the tubercular and gummatous lesions, considerable destruction of tissue may take place, and in consequence scarring result. Ill health from any cause predisposes to a relapse.

In *hereditary infantile syphilis*, the prognosis is always uncertain: the more distant from the time of birth the manifestations appear the more favorable usually is the outcome.

How is cutaneous syphilis to be treated?

Always with constitutional remedies; and in the graver eruptions, and especially in those more or less limited, with local applications also.

What constitutional and local remedies are commonly employed in cutaneous syphilis?

Constitutional Remedies.—Mercury and potassium iodide; tonics and nutrients are necessary in some cases.

Local Remedies.—Mercurial ointments, lotions and baths, and iodol in ointment or in (and also calomel) powder form.

Give the constitutional treatment of the earlier, or secondary, eruptions of syphilis.

In secondary or early eruptions mercury alone in almost every

case; with tonics, if called for. If mercury is contraindicated (extremely rare), potassium iodide may be substituted.

How is mercury usually administered in the eruptions of secondary syphilis?

By the mouth, chiefly as the protiodide, calomel and blue mass, in dosage just short of mild physiological action; by *inunction*, in the form of blue ointment; by *hypodermic injection*, usually as corrosive sublimate solution; and by *fumigation*, with calomel and the bisulphuret.

The method by the mouth is the common one, and it is only in rare instances that any other method is necessary or advisable.

What local applications are usually advised in the eruptions of secondary syphilis?

If the eruption is extensive, and more especially in the pustular types, baths of corrosive sublimate (℥ij–℥iv to Cong. xxx) may be used; and ointment of ammoniated mercury, twenty to sixty grains to the ounce, blue ointment, and the ten per cent. oleate of mercury alone or with an equal quantity of any ointment base.

The same applications or a dusting powder of calomel may also be used on moist papules.

How long is mercury to be actively continued in cases of early (secondary) syphilis?

Until one or two months after all manifestations (cutaneous or other) have disappeared, and then, as a general rule, continued, as a small daily dose, for one to two years—unless there should be some contraindication.

(Almost all authorities are agreed as to the importance of prolonged treatment, but differ somewhat on the question of intermittent or uninterrupted administration.)

Give the constitutional treatment of the late, or localized, syphilodermata.

Mercury always, usually in small or moderate dosage, as the biniodide or corrosive chloride, and potassium iodide; the latter in dose varying from two grains to two drachms or more, t. d., depending upon its action and the urgency of the case.

How long is constitutional treatment to be continued in cases of the late syphilodermata?

Actively for several weeks after the disappearance of all symptoms, and then (especially the mercury) continued in smaller dosage (about one-third) for one or two months longer.

What applications are usually advised in the late, or localized, syphilodermata?

Ointment of ammoniated mercury, twenty to sixty grains to the ounce; oleate of mercury, five to ten per cent. strength; mercurial plaster, full strength or weakened with lard or petrolatum; a two to twenty per cent. ointment of iodol; resorcin, twenty to sixty grains to the ounce of ointment base; and lotions of corrosive sublimate, one-half to three grains to the ounce.

The following is valuable in offensive and obstinate ulcerations:—

℞. Hydrarg. chlorid. corros., ... gr. iv–℥gr. viij
Ac. carbolici, ... gr. x–xx
Alcoholis, ... f℥iv
Glycerinæ, ... f℥j
Aquæ, ... q. s. ad . . . . . ℥iv. M.

Ointments are to be rubbed in or applied as a plaster; lotions, employed chiefly in ulcers and ulcerations, are to be thoroughly dabbed on, and usually supplemented by the application of an ointment. Iodol may also be applied to ulcers as a dusting-powder, usually mixed with one to several parts of zinc oxide or boric acid.

Give the treatment of hereditary infantile syphilis.

It is essentially the same (but much smaller dosage) as employed in acquired syphilis. Attention to proper feeding and hygiene is of first importance.

Mercury may be given by the mouth, as mercury with chalk (gr. ss–gr. ij, t. d.); as calomel (gr. $\frac{1}{20}$–gr. $\frac{1}{6}$, t. d.); and as a solution of corrosive sublimate (gr. ss–℥vj, ℥j, t. d.). If mercury is not well borne by the stomach, it may be administered by inunction; for this purpose, blue ointment is mixed with one or two parts of lard and spread (about a drachm) upon an abdominal bandage and applied, being renewed daily. Treatment by means of baths (gr. x–xxx to the bath) of corrosive sublimate is, at times, a serviceable method.

Potassium iodide, if exceptionally deemed preferable, may be given in the dose of a fractional part of a grain to two or three grains three times daily.

What local measures are to be advised in cutaneous syphilis of the newborn?

If demanded, applications similar to those employed in eruptions of acquired syphilis, but not more than one-third to one-half the strength.

Lepra.

(*Synonyms:* Leprosy; Elephantiasis Græcorum.)

What do you understand by leprosy?

Lepra, or leprosy, is an endemic, chronic, malignant constitutional disease, characterized by alterations in the cutaneous, nerve, and bone structures; varying in its morbid manifestations according to whether the skin, nerves or other tissues are predominantly involved.

What is the nature of the premonitory symptoms of leprosy?

In some instances the active manifestations appear without premonition, but in the majority of cases symptoms, slight or severe in character, pointing toward profound constitutional disturbance, such as mental depression, malaise, chills, febrile attacks, digestive derangements and bone pains, are noticed for weeks, months, or several years preceding the outbreak.

What several varieties of leprosy are observed?

Two definite forms are usually described—the tubercular and the anæsthetic. A sharp division-line cannot, however, always be drawn; not infrequently the manifestations are of a mixed type, or one form may pass into or gradually present symptoms of the other.

Describe the symptoms of tubercular leprosy.

The formation of tubercles and tubercular masses of infiltration, usually of a yellowish-brown color, with subsequent ulceration, constitute the important cutaneous symptoms. Along with, or preceding these characteristic lesions, blebs and more or less infiltrated, hyperæsthetic or anæsthetic, pinkish, reddish or pale-yellowish

macules make their appearance from time to time; subsequently fading away or remaining permanently (*lepra maculosa*).

When well advanced, the tubercular or nodular masses give rise to great deformity; the face, a favorite locality, becomes more or less leonine in appearance (*leontiasis*). The tubercles persist almost indefinitely without material change, or undergo absorption or ulceration; this last takes place most commonly about the fingers and toes. The mucous membrane of the mouth, pharynx and other parts may also become involved.

FIG. 55.

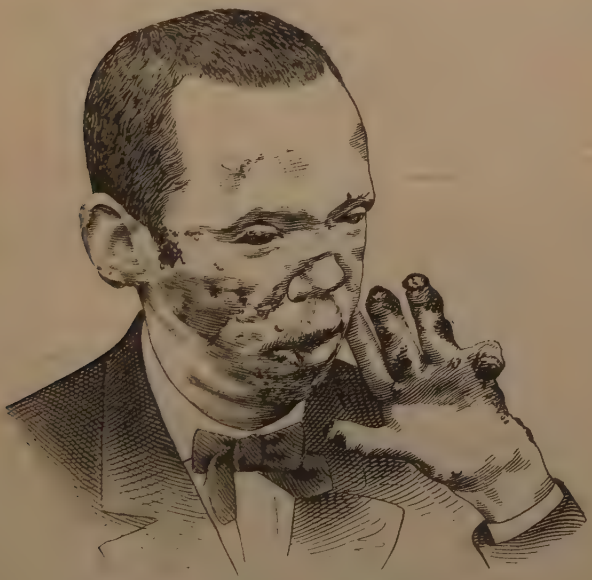
Tubercular Leprosy. (*After Stoddard.*)

Describe the symptoms of anæsthetic leprosy.

Following or along with precursory symptoms denoting general systemic disturbance, or independently of any prodromal indications, a hyperæsthetic condition, in localized areas or more or less general, is observed. Lancinating pains along the nerves and an irregular pemphigoid eruption are also commonly noted. There soon follows the special eruption, coming out from time to time, and consisting of several or more, usually non-elevated, well-defined, pale-yellowish patches, one or two inches in diameter. As a rule, they are at first

neither hyperæsthetic nor anæsthetic, but may be the seat of slight burning or itching. They spread peripherally, and tend to clear in the centre. The patches eventually become markedly anæsthetic, and the overlying skin, and the skin on other parts as well, becomes atrophic and of a brownish or yellowish color. The subcutaneous tissues, muscle, hair and nails undergo atrophic or degenerative

FIG. 56.



Anæsthetic Leprosy. (*After A. C. W. Beecher.*)

changes, and these changes are especially noted about the hands and feet. These parts become crooked, the bone tissues are involved, the phalanges dropping off or disappearing by disintegration or absorption (*lepra mutilans*). Sooner or later various paralytic symptoms, showing more active involvement of the nerve trunks, present themselves.

State the cause of leprosy.

Present knowledge points to a peculiar bacillus as the active factor, while climate, soil, heredity, food and habits exert a predisposing influence.

Is leprosy contagious?

It is probably contagious in the sense that syphilis is—by inoculation.

What are the pathological changes?

The lesions consist essentially of a new growth, made up of numerous small, more or less aggregated round cells, beginning in the walls of the bloodvessels. In this way the tubercular masses and various other lesions are formed. As yet, positive involvement of the central nervous system has not been shown, but some of the nerve trunks are found to be inflamed and swollen, with a tendency toward hardening.

What several diseases are to be eliminated in the diagnosis of leprosy?

Syphilis, morphœa, vitiligo and lupus.

When well advanced, the aggregate symptoms of leprosy form a picture which can scarcely be confused with that of any other disease. In doubtful cases microscopical examinations of the involved tissues, for the bacilli, should be made.

State the prognosis of leprosy.

Unfavorable; a fatal termination is almost invariable, but may not be reached for a number of years. The tubercular form is the most grave, the mixed variety next, and the anæsthetic the least. Patients are not infrequently carried off by intercurrent disease. Proper treatment will often delay the fatal ending.

What is the treatment of leprosy?

Hygienic measures are important. Chaulmoogra oil and gurjun oil internally and externally, are in some instances of service. Strychnia alone, or with either of these oils, is ofttimes beneficial. Ichthyol internally, and external application of the same drug, and of resorcin, chrysarobin, and pyrogallic acid have been extolled.

Pellagra.

(*Synonym:* Lombardian Leprosy.)

Describe pellagra.

Pellagra is a slow but usually progressive disease occurring chiefly in Italy, due, it is thought, to the continued ingestion of decomposed or fermented maize. It is characterized by cutaneous symptoms, at first upon exposed parts, of an erythematous, desquamative, vesicular and bullous character, and by general constitutional disturbance of a markedly neurotic type. A fatal ending, if the disease is at all severe or advanced, is to be expected.

Treatment is based upon general principles.

Epithelioma.

(*Synonyms:* Skin Cancer; Epithelial Cancer; Carcinoma Epitheliale.)

What several varieties of epithelioma are met with?

Three—the superficial, the deep-seated, and the papillomatous.

Describe the clinical appearances and course of the superficial variety of epithelioma.

The superficial, or flat variety (*rodent ulcer*), begins, usually on the face, as a minute, firm, reddish or yellowish tubercle, as an aggregation of such, as a warty excrescence, or as a localized degenerative seborrhœic patch. Sooner or later, commonly after months or several years, the surface becomes slightly excoriated, and an insignificant, yellowish or brownish crust is formed. The excoriation gradually develops into superficial ulceration, and the diseased area becomes slowly larger and larger. New lesions may continue, from time to time, to appear about the edges and go through the same changes.

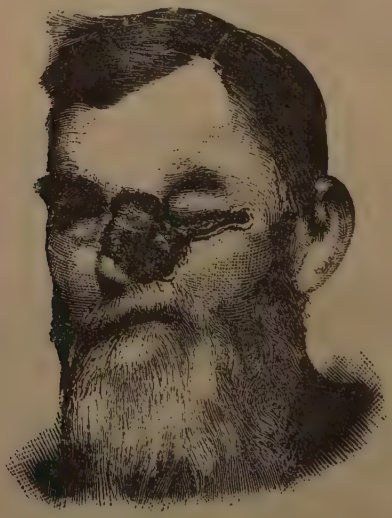
The ulcer has usually an uneven surface, secretes a thin, scanty, viscid fluid, which dries to a firm, adherent crust. It is usually defined against the healthy skin by a slightly elevated, hard, roll-like, waxy-looking border. In rare instances there is a disposition, at points, to spontaneous involution and scar formation; as a rule, however, the ulcerative action slowly progresses.

The general health is unimpaired, the neighboring lymphatic glands are not involved, and the local condition, beyond the disfigurement, gives rise to little trouble, unless, as occasionally happens, it passes into the more malignant, deep-seated variety.

Describe the clinical appearances and course of the deep-seated variety of epithelioma.

The deep-seated variety starts from the superficial form, or it begins as a tubercle or nodule in the skin. When typically developed,

FIG. 57.



Epithelioma. (*After D. Lewis.*)

a reddish, shining tubercle or nodule, or area of infiltration, forms in the skin or subcutaneous tissue. In the course of weeks or months superficial or deep-seated ulceration takes place; the ulcer having hardened, and, as a rule, everted edges. The surface is reddish and granular, and secretes an ichorous discharge. The infiltration spreads, the ulcer enlarges both peripherally and in depth—muscle, cartilage and bone often becoming invaded. The neighbor-

ing lymphatic glands are finally implicated, pains of a burning or neuralgic type are experienced, and from septicæmia, marasmus or involvement of vital parts, death eventually ensues.

Describe the clinical appearances and course of the papillomatous variety of epithelioma.

The papillomatous type usually arises from the superficial or deep-seated variety, or it may begin as a papillary or warty growth. When fully developed, it presents an ulcerated, fissured and papillomatous surface, with an ichorous discharge which dries to crusts. It is slowly progressive, and sooner or later may develop a malignant tendency.

Upon what parts is epithelioma commonly observed?

About the face, especially the nose, eyelids and lips; and also about the genitalia. It may involve any part.

At what age is epithelioma usually noted?

It is essentially a disease of middle and late life, although it is exceptionally met with in the young.

What is the cause of epithelioma?

The etiology is obscure. It is not, as a rule, inherited. Any locally irritated tissue may be the starting point of the disease.

State the pathology.

The process consists in the proliferation of epithelial cells from the mucous layer; the cell-growth takes place downward, in the form of finger-like prolongations or columns, or it may spread out laterally, so as to form rounded masses, the centres of which usually undergo horny transformation, resulting in the formation of onion-like bodies, the so-called cell-nests or globes. The rapid cell-growth requires increased nutriment, and hence the bloodvessels become enlarged; moreover, the pressure of the cell-masses gives rise to irritation and inflammation, with corresponding serous and round-cell infiltration.

How would you distinguish epithelioma from syphilitic ulceration, wart, and lupus vulgaris?

From syphilis it is to be differentiated by the history, duration, character of the base and edges, its comparative slow progress, its

usually slight, viscid discharge, often streaked with blood, and, if necessary, by the therapeutic test.

Wart or warty growths are to be differentiated by attention to their history and course. Long-continued observation may be necessary before a positive opinion is warrantable. The appearance of any tendency to crusting, to break down or ulcerate is significant of epitheliomatous degeneration.

In lupus vulgaris the deposits are peculiar and multiple, the ulcerations are of different character, the tendency to scar-formation constant; and, with few exceptions, it has, moreover, its beginning in childhood or early adult life.

What factors are to be considered in giving a prognosis in epithelioma?

The variety, extent, and rapidity of the process. The superficial form may exist for years, and give rise to no alarm; whereas the deeper-seated varieties are always to be viewed as serious, and are, indeed, often fatal. Involving the genitalia, its course is often strikingly rapid. Relapses, after removal, are not uncommon.

What is the special object in view in the treatment of epithelioma?

Thorough destruction or removal of the epitheliomatous tissue.

How is the destruction or removal of the epitheliomatous tissue effected?

By the use of such caustics as caustic potash, pyrogallic acid, arsenic, and the galvano-cautery; and by operative measures, such as excision and erasion with the dermal curette. (See treatment of lupus vulgaris.)

Of these several methods, that with the curette and that by excision in suitable cases, are the most convenient and satisfactory.

Paget's Disease of the Nipple.

(*Synonyms:* Malignant Papillary Dermatitis; Paget's Disease.)

What do you understand by Paget's disease of the nipple?

Paget's disease is a rare, inflammatory-looking, malignant disease of the nipple and areola in women, eventually terminating in cancerous involvement of the entire gland.

Describe the symptoms of Paget's disease.

The first symptoms, which usually last for months or years, are apparently eczematous, accompanied with more or less burning, itching and tingling. Gradually, the diseased area, which is sharply-defined, and feels like a thin layer of indurated tissue, presents a florid, intensely red, very finely-granular, raw surface, attended with a more or less copious viscid exudation. Sooner or later retraction and destruction of the nipple, followed by gradual scirrhous involvement of the whole breast, takes place.

What is the pathology of Paget's disease?

It is thought, on the one hand, to be a cancerous disease resulting from a continued eczematous inflammation of the parts, and by others it is considered to be of a cancerous nature from the very beginning. It is usually met with in women between the ages of forty and sixty.

State the diagnostic features of Paget's disease.

The age of the patient; the sharp limitation; the well-defined, indurated film of infiltration; the peculiar, red, raw, granulating appearance; and, later, the retraction of the nipple; and, finally, the involvement of the deeper parts.

What is the prognosis?

If the disease is recognized early, and properly treated, a complete cure may be anticipated; later the outlook is the same as that of scirrhus of the breast.

What is the treatment of Paget's disease?

Thorough cauterization by means of caustic potash or the galvanocautery; or, its extirpation by means of the curette or excision.

Until the diagnosis is thoroughly established, soothing applications, such as are employed in acute eczema, are to be advised.

Sarcoma.

(*Synonyms:* Sarcoma Cutis; Sarcoma of the Skin.)

Describe the several varieties of sarcoma.

Sarcoma of the skin is a more or less malignant new growth, of rapid or slow progress, characterized by the appearance of single or multiple, variously-shaped, discrete, non-pigmented or pigmented

FIG. 58.

Mycosis Fungoides. (*After Duhring.*)

tubercles or tumors, of size varying from that of a shot to a hazel-nut or larger. As a rule the growths are smooth, firm and elastic, somewhat painful upon pressure, and exhibit a tendency to ulcerate. The overlying skin is at first normal and somewhat movable, but as the growths approach the surface it becomes reddened and adherent; or, if the disease is of the pigmented variety, it acquires a bluish-black color.

The multiple pigmented sarcoma (*melano-sarcoma*) appears first usually on the soles and dorsal surfaces of the feet, and later, on the hands. There is more or less diffuse thickening of the integument. The lesions themselves manifest a disposition to bleed.

A rare form of sarcoma (more recently viewed as a granuloma) is that described under the name of *mycosis fungoides* (also called *inflammatory fungoid neoplasm*). It is characterized usually by symptoms of an eczematous and erysipelatous nature, and by the sudden or gradual appearance of pinkish or reddish, tubercular, nodular, lobulated or furrowed tumors or flat infiltrations, which may disappear by involution or be followed by ulceration. The lesions, especially in their early stages, are, as a rule, accompanied with more or less burning and itching.

State the prognosis of sarcoma.

The disease is always more or less malignant, and, as a rule, sooner or later, a fatal termination takes place. It is usually slow in its course.

What is the treatment of sarcoma?

Treatment is palliative. Surgical interference may be of service in particular situations. A favorable influence has been noted, in a few instances, to follow hypodermic injections of Fowler's solution in increasing dosage.

CLASS VII.—NEUROSES.

Hyperæsthesia.

What is hyperæsthesia?

By hyperæsthesia is meant increased cutaneous sensibility. It is usually more or less localized, and is met with as a symptom in functional and organic nervous diseases.

Dermatalgia.

(*Synonyms:* Neuralgia of the Skin; Rheumatism of the Skin; Dermalgia.)

What do you understand by dermatalgia?

By dermatalgia is meant a tender or painful condition of the skin unattended by structural change. It is commonly limited to a small area, and is usually symptomatic of functional or organic nervous disease. As an idiopathic affection it is looked upon as of a rheumatic origin.

Treatment depends upon the cause.

Anæsthesia.

What is anæsthesia?

Anæsthesia is a diminution, comparative or complete, of cutaneous sensibility. It is usually localized, and is met with in the course of certain nervous affections. It is also encountered in leprosy, morphœa and like diseases.

Pruritus.

What do you understand by pruritus?

Pruritus is a functional disease of the skin, the sole symptom of which is itching, there being no structural change.

Describe the symptoms of pruritus.

The sole and essential symptom is itchiness, usually more or less

paroxysmal, and worse at night. There are no primary structural lesions, but in severe and persistent cases the parts become so irritated by continued scratching that secondary lesions, such as papules and slight thickening and infiltration, may result. It is much more common in advanced life—*pruritus senilis*. In such cases, as well as in those cases in younger and middle-aged individuals in which the itchiness develops at the approach of cold weather and disappears upon the coming of the warm season (*pruritus hiemalis*), the pruritus is usually more or less generalized, although not infrequently in the latter the legs are specially involved.

Is pruritus always more or less generalized?

No; not infrequently the itching is limited to the genital region (*pruritus scroti*, *pruritus vulvæ*) or to the anus (*pruritus ani*).

To what may pruritus often be ascribed?

To digestive and intestinal derangements, hepatic disorders, the uric acid diathesis, gestation, diabetes mellitus, and a depraved state of the nervous system.

Pruritus vulvæ is at times due to irritating discharges, and pruritus ani occasionally to seat worms.

Is there any difficulty in the diagnosis of pruritus?

No. The subjective symptom of itching without the presence of structural lesions is diagnostic. In those severe and persistent cases in which excoriations and papules have resulted from the scratching, the history of the case, together with its course, must be considered. Care should be taken not to confound it with pediculosis. In this latter the excoriations usually have a somewhat peculiar distribution, being most abundant on those parts of the body with which the clothing lies closely in contact. (See pediculosis corporis.)

What prognosis would you give in pruritus?

In the majority of cases the condition responds to proper treatment, but in others it proves rebellious. The prognosis depends, in fact, upon the removability of the cause. Temporary relief may always be given by external applications.

How would you treat pruritus?

With systemic remedies directed toward a removal or modification

of the etiological factors, and, for the temporary relief of the itching, suitable antipruritic applications. In obscure cases, quinia, belladonna, nux vomica, arsenic, pilocarpine and general galvanization may be variously tried.

Exceptionally, the relief furnished by external treatment is more or less permanent.

Name the important antipruritic applications.

Alkaline baths; lotions of carbolic acid (ʒj–ʒiij to Oj), of thymol (gr. xviij–gr. xxxij to Oj alcohol and water), of resorcin (ʒj–ʒiv to Oj), of liquor carbonis detergens (ʒj–ʒiv to Oj), and liquor picis alkalinus (ʒj–ʒiv to Oj) used cautiously. One or several ounces of alcohol and one or two drachms of glycerine in each pint of these lotions will often be of advantage, as the following:—

℞. Ac. carbolici, ... ʒj–ʒiij
Gylcerinæ, ... fʒij
Alcoholis, ... fʒij
Aquæ, ... q. s. ad . . . . . Oj. M.

The various dusting powders, alone or used in conjunction with the lotions.

And in some cases, especially those in which the skin is unnaturally dry, ointments may be used, such as equal parts of lard, lanolin, and petrolatum; to the ounce of which may be added five to thirty grains of carbolic acid, three to twenty grains of thymol or ten to thirty minims of chloroform.

What external applications are to be used in the local varieties of pruritus?

In *pruritus ani* and *pruritus vulvæ*, in addition to the various applications above, a cocaine ointment, one to ten grains to the ounce, a strong solution of the same (gr. v–xx to ʒj), and an ointment containing ten to thirty minims of the oil of peppermint to the ounce; sponging with hot water, often affords temporary relief.

In pruritus vulvæ, moreover, astringent applications and injections of zinc sulphate, alum, tannic or acetic acid, in the strength commonly employed for vaginal injections, are at times curative.

CLASS VIII.—PARASITIC AFFECTIONS.

Tinea Favosa.

(*Synonym:* Favus.)

What is tinea favosa?

Tinea favosa, or favus, is a contagious vegetable-parasitic disease of the skin, characterized by pin-head to pea-sized, friable, umbilicated, cup-shaped yellow crusts, each usually perforated by a hair.

Upon what parts and at what age is favus observed?

It is usually met with upon the scalp, but it may occur upon any part of the integument. Occasionally the nails are invaded.

It is seen at all ages, but is much more common in children.

Describe the symptoms of favus of the scalp.

The disease begins as a superficial inflammation or hyperæmic spot, more or less circumscribed, slightly scaly, and which is soon followed by the formation of yellowish points about the hair follicles, surrounding the hair shaft. These yellowish points or crusts increase in size, become usually as large as small peas, are cup-shaped, with the convex side pressing down upon the papillary layer, and the concave side raised several lines above the level of the skin; they are umbilicated, friable, sulphur-colored, and usually each cup or disc is perforated by a hair. Upon removal or detachment, the underlying surface is found to be somewhat excavated, reddened, atrophied and sometimes suppurating. As the disease progresses the crusting becomes more or less confluent, forming irregular masses of thick, yellowish, mortar-like crusts or accumulations, having a peculiar, characteristic odor—that of mice, or stale, damp straw. The hairs are involved early in the disease, become brittle, lustreless, break off and fall out. In some instances, especially near the border of the crusts, are seen pustules or suppurating points. *Atrophy* and more or less actual *scarring* are sooner or later noted.

Itching, variable as to degree, is always present.

What is the course of favus of the scalp?

Persistent and slowly progressive.

What are the symptoms of favus when seated upon the general surface?

The symptoms are essentially similar to those upon the scalp, modified somewhat by the anatomical differences of the parts.

The *nails*, when affected, become yellowish, more or less thickened, brittle and opaque (*tinea favosa unguium*, *onychomycosis favosa*).

To what is favus due?

Solely to the invasion of the cutaneous structures, especially the

FIG. 59.

Achorion Schönleinii × 450. (*After Duhring.*)
Showing simple mycelium, in various stages of development, and free spores.

epidermal portion, by the vegetable parasite, the *achorion Schönleinii*. It is contagious. It is a comparatively rare disease in this country, and is observed almost exclusively among the poor. The nails are rarely affected primarily.

It is also met with in the lower animals from which it is doubtless not infrequently communicated to man.

What are the diagnostic features of favus?

The yellow, and often cup-shaped, crusts, brittleness and loss of hair, atrophy, and the history.

How would you distinguish favus from eczema and ringworm?

From eczema by the condition of the affected hair, the atrophic and scar-like areas, the odor, and the history. From ringworm by the crusting and the atrophy. In this latter disease there is usually but slight scaliness, and rarely any scarring.

Finally, if necessary, a microscopic examination of the crusts may be made.

State the method of examination for fungus.

A portion of the crust is moistened with liquor potassæ and examined with a power of three to five hundred diameters. The fungus, (achorion Schönleinii), consisting of mycelium and spores, is luxuriant and is readily detected.

State the prognosis of favus.

Upon the scalp, favus is extremely chronic and rebellious to treat-

FIG. 60.

Epilating Forceps.

ment, and a cure in three to twelve months may be considered satisfactory; in neglected cases permanent baldness, atrophy and scarring sooner or later result. Upon the general surface it usually responds readily—excepting favus of the nails, which is always obstinate.

How is favus of the scalp treated?

Treatment is entirely local and consists in keeping the parts free from crusts, in epilation and applications of a parasiticide.

The crusts are removed by oily applications and soap-and-water washings. The hair on and around the diseased parts is to be kept closely cut, and when practicable epilation, or extraction of the affected hairs, is to be advised; this latter is of material aid in expediting the cure. Remedial applications—the so-called parasiticides—are, as a rule, to be made twice daily. If an ointment is

used, it is to be thoroughly rubbed in; if a lotion, it is to be dabbed on for several minutes and allowed to soak in.

Name the most important parasiticides.

Corrosive sublimate, one to four grains to an ounce of alcohol and water; carbolic acid, one part to three or more parts of glycerine; a ten per cent. oleate of mercury; ointments of ammoniated mercury, sulphur and tar; and sulphurous acid, pure or diluted. The following is valuable:—

℞. Sulphur. præcip., ... ℥ij
Saponis viridis,
Ol. cadini, ... āā . . . . . ℥j
Adipis, ... ℥ss. M.

Chrysarobin is a valuable remedy, but must be used with caution; it may be employed as an ointment, five to ten per cent. strength, as a rubber plaster, or as a paint, a drachm to an ounce of gutta-percha solution.

How is favus upon the general surface to be treated?

In the same general manner as favus of the scalp, but the remedies employed should be somewhat weaker. In favus of the nail frequent and close paring of the affected part and the application, twice daily, of one of the milder parasiticides, will eventually lead to a good result.

Is constitutional treatment of any value in favus?

It is questionable, but in debilitated subjects tonics, especially cod-liver oil, may be prescribed with the hope of aiding the external applications.

Tinea Trichophytina.

(*Synonym:* Ringworm.)

What is tinea trichophytina?

Tinea trichophytina, or ringworm, is a contagious, vegetable-parasitic disease due to the invasion of the cutaneous structures by the vegetable parasite, the trichophyton.

Do the clinical characters of ringworm vary according to the part affected?

Yes, often considerably; thus upon the scalp, upon the general surface, and upon the bearded region, the disease usually presents totally different appearances.

Describe the symptoms of ringworm as it occurs upon non-hairy portions of the body.

Ringworm of the general surface (*tinea trichophytina corporis*, *tinea circinata*) appears as one or more small, slightly-elevated, sharply-limited, somewhat scaly, hyperæmic spots, with, rarely, minute papules, vesico-papules, or vesicles, especially at the circumference. The patch spreads in a uniform manner peripherally, is slightly scaly, and tends to clear in the centre, assuming a ring-like appearance. When coming under observation, the patches are usually from one-half to one inch in diameter, the central portion pale or pale red, and the outer portion more or less elevated, hyperæmic and somewhat scaly. As commonly noted one, several or more patches are present. After reaching a certain size they may remain stationary, or in exceptional cases may tend to spontaneous disappearance. At times when close together, several may merge and form a large, irregular, gyrate patch.

Itching, usually slight, may or may not be present.

Describe the symptoms of ringworm when occurring about the thighs and scrotum.

In adults, more especially males, the inner portion of the upper part of the thighs and scrotum (*tinea trichophytina cruris*, so-called *eczema marginatum*) may be attacked, and here the affection, favored by heat and moisture, develops rapidly and may soon lose its ordinary clinical appearances, the inflammatory symptoms becoming especially prominent. The whole of this region may become involved, presenting all the symptoms of a true eczema; the border, however, is sharply defined, and usually one or more outlying patches of the ordinary clinical type of the disease may be seen.

Describe the symptoms of ringworm when involving the nails.

In ringworm of the nails (*tinea trichophytina unguium*) these structures become soft or brittle, yellowish, opaque and thickened

the changes taking place mainly about the free borders. Ringworm on other parts usually coexists.

Describe the symptoms of ringworm as it occurs upon the scalp.

Ringworm of the scalp (*tinea trichophytina capitis*, *tinea tonsurans*) begins usually in the same manner as that upon the general surface, but, as a rule, much more insidiously. Sooner or later,

FIG. 61.

Tinea trichophytina cruris—so-called eczema marginatum—of unusually extensive development. (*After Piffard.*)

however, the hair and follicles are invaded by the fungus, and in consequence the hair falls out or becomes brittle and breaks off. The follicles, except in long-standing cases, are slightly elevated and prominent, and the patch may have a puffed or goose-flesh appearance. In addition, there is slight scaliness.

Describe the appearances of a typical patch of ringworm of the scalp.

The patch is rounded, grayish, somewhat scaly, and slightly ele-

vated; the follicles are somewhat prominent; there is more or less alopecia, with here and there broken, gnawed-off-looking hairs, some of which may be broken off just at the outlet of the follicles and appear as black specks.

Does ringworm of the scalp always present typical appearances?

Not invariably. In some cases the patch or patches may become almost completely bald, and in others a tendency to the formation of pustules, with more or less crust-formation, may be seen. The affection may also appear as small, scattered spots or points.

What is tinea kerion?

Tinea kerion (*kerion*) is a markedly inflammatory type of ringworm of the scalp involving the deeper tissues, appearing as a more or less bald, rounded, inflammatory, œdematous, boggy, honeycombed tumor, discharging from the follicular openings a mucoid secretion.

Does ringworm of the scalp ever occur in adults?

No. (Extremely rare exceptions.)

Describe the symptoms of ringworm of the bearded region.

Ringworm of the bearded region (*tinea trichophytina barbæ*, *tinea sycosis*, *parasitic sycosis*, *barber's itch*) begins usually in the same manner as ringworm on other parts, as one or more rounded, slightly scaly, hyperæmic patches. In rare instances the disease may persist as such, with very little tendency to involve the hairs and follicles; but, as a rule, the hairy structures are soon invaded, many of the hairs breaking off, and many falling out. From involvement of the follicles, more or less subcutaneous swelling ensues, the parts assuming a distinctly *lumpy and nodular* condition. The skin is usually considerably reddened, often having a glossy appearance, and studded with few or numerous pustules. The nodules tend, ordinarily, to break down and discharge, at one or more of the follicular openings, a glairy, glutinous, purulent material, which may dry to thick, adherent crusts.

The disease may be limited to one patch, or a large area, even to the extent of the whole bearded region, becomes involved. The upper lip is rarely invaded.

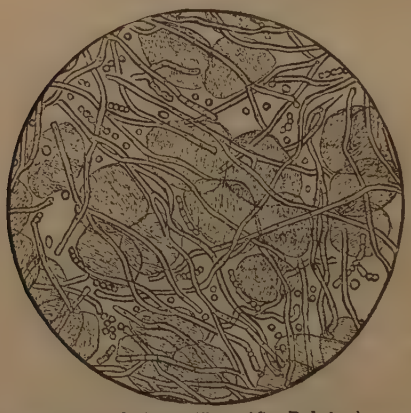
To what is ringworm due?

To the presence and growth in the cutaneous structures of the vegetable parasite, the *trichophyton*. Although the disease is contagious, individuals differ considerably as to susceptibility. It is much more common in children than in those past the age of puberty, ringworm of the scalp being limited to the former, and tinea sycosis being a disease of the male adult.

What is the pathology of ringworm?

On the general surface the fungus has its seat in the epidermis,

FIG. 62.



Trichophyton × 450. (*After Duhring.*)
As found in epidermic scrapings of ringworm, showing mycelium and spores.

especially in the corneous layer; upon the scalp and bearded region the epidermis, hair-shaft, root and follicle are invaded. The inflammatory action may vary considerably in different cases, and at different times in the same case.

The fungus consists of mycelium and spores. In the epidermic scrapings it is never to be found in abundance, and the mycelium predominates, while in affected hairs the spores and chains of spores are almost exclusively seen, and are usually present in great profusion.

How do you examine for the fungus?

The scrapings or hair should be moistened with liquor potassæ, and examined with a power from three hundred diameters upward.

FIG. 63.

Trichophyton × 350. (*After Duhring.*)
Short, broken-off hair of scalp invaded with free spores and chains of spores.

How is ringworm of the general surface to be distinguished from eczema, psoriasis and seborrhœa?

By the growth and characters of the patch, the slight scaliness,

the tendency to disappear in the centre, by the history, and, if necessary, by a microscopic examination of the scales.

How is ringworm of the scalp to be distinguished from alopecia areata, favus, eczema, seborrhœa, and psoriasis?

By the peculiar clinical features of ringworm on this region—the

FIG. 64.

Trichophyton × 300. (*After Duhring.*)
Short, stout hair of beard, with the root sheath attached, showing free spores and chains of spores.

slight scaliness, broken hair and hair stumps, with a certain amount of baldness—and in doubtful cases by a microscopical examination of the hairs.

In favus, although the same condition of the hair is noted, the

yellow, cup-shaped crusts, and the presence of the atrophic areas in that disease are pathognomonic.

How is ringworm of the bearded region to be distinguished from eczema and non-parasitic sycosis?

By the peculiar lumpiness of the parts, the brittleness of the hair, more or less hair-loss, the history, and finally, in doubtful cases, by microscopical examination.

What is the prognosis of ringworm of these several parts?

When upon the general surface, the disease usually responds rapidly to therapeutical applications; upon the scalp it is always a stubborn affection, and, as a rule, requires at least several months of energetic treatment to effect a cure. In this latter region the disease will disappear spontaneously as the age of fifteen or sixteen is reached. Tinea sycosis yields in most instances in the course of several weeks or a few months.

Is ringworm of these several parts treated with the same remedies?

As a rule, yes; but the strength must be modified. The scalp will stand strong applications, as will likewise the bearded region; upon non-hairy portions the remedies should be used somewhat weaker. They should be applied twice daily; ointments, if used, being well rubbed in, and lotions thoroughly dabbed on.

How would you treat ringworm of the general surface?

By applications of the milder parasiticides, such as a ten to fifteen per cent. solution of sodium hyposulphite; carbolic acid, five to thirty grains to the ounce of water, or lard; a saturated solution of boric acid; ointments of tar, sulphur and mercury, officinal strength or weakened with lard.

When occurring upon the upper and inner part of the thighs (so-called eczema marginatum), the same remedies are to be employed, but usually stronger. Deserving of special mention is a lotion of corrosive sublimate, one to four grains to the ounce; or the same remedy, in the same proportion, may be used in tincture of myrrh or benzoin, and painted on the parts.

How would you treat ringworm of the scalp?

By occasional soap-and-hot-water washing; by extraction of the

involved hairs, when practicable; by carbolic acid or boric acid lotions to the whole scalp, so as to limit, as much as possible, the spread of the disease; and by daily (or twice daily) applications to the patches and involved areas of a parasiticide. The following are the most valuable: the oleate of mercury, with lard or lanolin, in varying strength, from five to twenty per cent.; carbolic acid, with one to three or more parts of glycerine or oil; corrosive sublimate, in solution in alcohol and water, one to four grains to the ounce; sulphur ointment; and citrine ointment, with one or two parts of lard. Chrysarobin is a valuable remedy, but is to be employed with care; it may be prescribed as a rubber plaster, or in a solution of gutta-percha, or as an ointment, ten to fifteen per cent. strength.

And also:—

℞. Hydrarg. oleat. (20%), ... ℥iij
Ac. carbolici, ... ℥j
Lanolin., ... ℥ss. M.

In that form known as tinea kerion, mild applications are demanded at first; later the same treatment as in the ordinary type.

How is ringworm of the bearded region to be treated?

On the same general plan and with the same remedies (excepting chrysarobin) as in ringworm of the scalp. Epilation is to be practised as an essential part of the treatment. Special mention may be made of an ointment of oleate of mercury, sulphur ointment, a lotion of sodium hyposulphite (℥j–℥j) and a lotion of corrosive sublimate (gr. j–iv to ℥j).

How is the certainty of an apparent cure in ringworm of the scalp or bearded region to be determined?

By microscopical examination of the new-growing hairs from time to time for several weeks after discontinuance of treatment.

Cure of ringworm of the general surface is usually self-evident.

Is constitutional treatment of any aid toward the cure of ringworm?

It is doubtful, although in children in a depraved state of health the disease is often noted to be especially stubborn, and in such, cod-liver oil and similar remedies may at times prove of benefit.

Tinea Versicolor.

(*Synonyms:* Pityriasis Versicolor; Chromophytosis.)

What is tinea versicolor?

Tinea versicolor is a vegetable-parasitic disease of the skin, characterized by variously-sized and shaped, slightly scaly, macular patches of a yellowish-fawn color, and occurring for the most part upon the trunk.

Describe the symptoms of tinea versicolor.

The disease begins as one or more yellowish macular points; these, in the course of weeks or months, gradually extend, and, together with other patches that arise, may form a more or less continuous sheet of eruption. There is slight scaliness, always insignificant and furfuraceous in character, and at times, except upon close inspection, scarcely perceptible. The color of the patches is pale or brownish-yellow; in rare instances, in those of delicate skin, there may be more or less hyperæmia, and in consequence the eruption is of a reddish tinge. The number of patches varies; there may be but a few, or, on the other hand, a profusion. Slight itching, especially when the parts are warm, is usually present.

Does the eruption of tinea versicolor show predilection for any special region?

Yes; the upper part of the trunk, especially anteriorly, is the usual seat of the eruption, but in exceptional instances the neck, axillæ, the arms, the whole trunk, and the inner surfaces of the thighs may become invaded.

What course does tinea versicolor pursue?

Persistent, but somewhat variable; as a rule, however, slowly progressive and lasting for years.

To what is tinea versicolor due?

To a vegetable fungus—the *microsporon furfur*.

The affection is tolerably common, and occurs in all parts of the world. With rare exceptions, it is a disease of adults, and while looked upon as contagious, must be so to an extremely slight degree.

What is the pathology?

The fungus, consisting of mycelium and spores, the latter showing a marked tendency to aggregate, invades the superficial portion of the epidermis.

Is tinea versicolor readily diagnosticated?

Yes; if the color, peculiar characters and distribution of the eruption are kept in mind.

It is not to be confounded with vitiligo, chloasma, or the macular syphiloderm. If in doubt, have recourse to the microscope.

FIG. 65.

Microsporon Furfur × 400. (*After Duhring.*)
Showing mycelium in various stages of development, groups of spores and free spores.

State the method of examination for fungus.

The scrapings are taken from a patch, moistened with liquor potassæ, and examined with a power of three to five hundred diameters.

State the prognosis of tinea versicolor.

With proper management the disease is readily curable. Relapses are not uncommon.

What is the treatment of tinea versicolor?

It consists in daily washing with soap and hot water (and in obstinate cases with sapo viridis instead of the ordinary soap) and application

of a lotion of—sulphite or hyposulphite of sodium, a drachm to the ounce; sulphurous acid, pure or diluted; carbolic acid, or resorcin, ten to twenty grains to the ounce of water and alcohol; or corrosive sublimate, one to three grains to the ounce of water. Sulphur and ammoniated-mercury ointments are also serviceable. The following used alone, simply as a soap, or in conjunction with a lotion, is often of special value:—

℞. Sulphur. præcip., ... ʒ vj
Saponis viridis, ... ʒ x. M.

After the disease is apparently cured, an occasional remedial application should be made for a few weeks or a month, in order to guard against the possibility of a relapse.

Erythrasma.

Describe erythrasma.

Erythrasma is an extremely rare disease, due to the presence and

FIG. 66.

Microsporon Minutissimum × 1000. (*After Riehl.*)

growth in the epidermic structures of the vegetable parasite—the *microsporon minutissimum.* It is characterized by small and large,

slightly furfuraceous, reddish-yellow or reddish-brown patches, occurring usually on warm and moist parts, such as the axillary, inguinal, anal and genito-crural regions. It is slowly progressive and persistent, but is without disturbing symptoms other than occasional slight itching.

Treatment, which is rapidly effective, is the same as that employed in tinea versicolor.

Scabies.

(*Synonym:* The Itch.)

What is scabies?

Scabies, or itch, is a contagious animal-parasitic disease characterized by a multiform eruption of a somewhat peculiar distribution, attended by intense itching.

Describe the symptoms of scabies.

The penetration and presence of the parasites within the cutaneous structures besides often giving rise to several or more complete or imperfectly formed *burrows*, excite varying degrees of irritation, and in consequence the formation of vesicles, papules and pustules, accompanied with more or less intense itching. Secondarily, crusting, and at times a mild or severe grade of dermatitis, may be brought about. The parasite seeks preferably tender and protected situations, as between the fingers, on the wrists, especially the flexor surface, in the folds of the axillæ, on the abdomen, about the anal fissure, about the genitalia, and in females also about the nipples, and hence the eruption is most abundant about these regions. The inside of the thighs and the feet are also attacked, as, indeed, may be almost every portion of the body. The scalp and face are not involved; exceptionally, however, these parts are invaded in infants and young children.

Is the grade of cutaneous irritation the same in all cases of scabies?

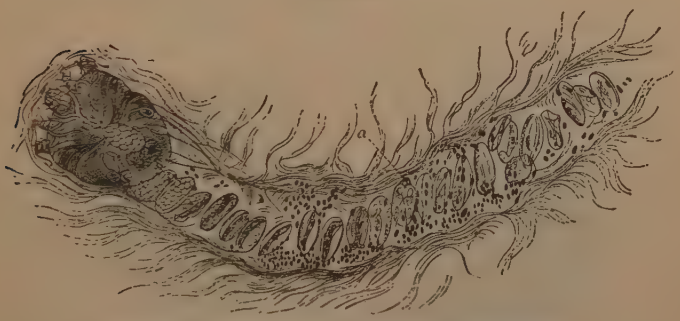
No; in those of great cutaneous irritability, especially in children, the skin being more tender, the type of the eruption is usually much more inflammatory. In those predisposed a true eczema may arise, and then, in addition to the characteristic lesions of scabies, ecze-

matous symptoms are superadded; in long-persistent cases, indeed, the burrows and other consequent lesions may be more or less completely masked by the eczematous inflammation, and the true nature of the disease be greatly obscured.

What do you mean by burrows?

Burrows, or *cuniculi*, are tortuous, straight or zigzag, dotted, slightly elevated, dark-gray or blackish thread-like linear formations, varying in length from an eighth to a half an inch.

FIG. 67.



Burrow, or cuniculus, greatly magnified. (*After Kaposi.*)
Showing the mite, ova, empty shells and excrement.

How is a burrow formed?

By the impregnated female parasite, which penetrates the epidermis obliquely to the rete, depositing as it goes along ten or fifteen ova, forming a minute passage or burrow.

Upon what parts are burrows most commonly to be found?

In the interdigital spaces, on the flexor surface of the wrists, about the mammæ in the female, and on the shaft of the penis in the male.

Are burrows usually present in numbers?

No. Several may be found in a single case, but they are rarely numerous, as the irritation caused by the penetration of the parasites leads either to violent scratching and their destruction, or gives rise to the formation of vesicles and pustules, and consequently their formation is prevented.

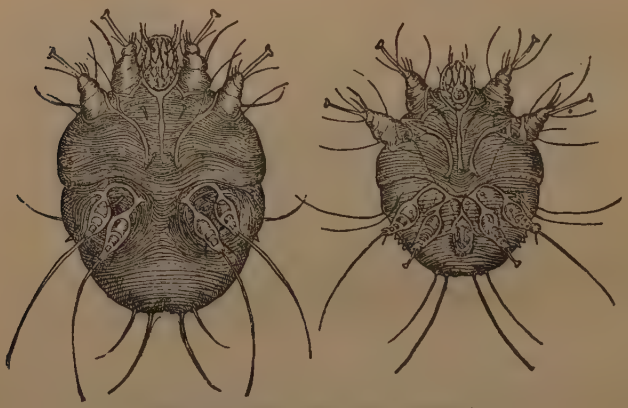
What course does scabies pursue?

Chronic and progressive, showing no tendency to spontaneous disappearance.

To what is scabies due?

To the invasion of the cutaneous structures by an animal parasite, the sarcoptes scabiei (*acarus scabiei*). The male mite is never found in the skin and apparently takes no direct part in the production of the symptoms.

FIG. 68. FIG. 69.



Sarcoptes scabiei × 100. (*After Duhring.*)
Female. Ventral surface. Male.

The disease is contagious to a marked degree, and is most commonly contracted by sleeping with those affected, or by occupying a bed in which an affected person has slept. It occurs, for obvious reasons, usually among the poor, although it is occasionally met with among the better classes.

State the diagnostic features of scabies.

The burrows, the peculiar distribution and the multiformity of the eruption, the progressive development, and usually a history of contagion.

How do vesicular and pustular eczema differ from scabies?

Eczema is usually limited in extent or irregularly distributed, is distinctly patchy, with often the formation of large diffused areas; it is variable in its clinical behavior, better and worse from time to time, and differs, moreover, in the absence of burrows and of a history of contagion.

How does pediculosis corporis differ from scabies?

In the distribution of the eruption. The pediculi live in the clothing and go to the skin solely for nourishment, and hence the eruption in that condition is upon covered parts, especially those parts with which the clothing lies closely in contact, as around the neck, across the upper part of the back, about the waist and down the outside of the thighs; *the hands are free.*

State the prognosis of scabies.

It is favorable. The disease is readily cured, and, as soon as the parasites and their ova are destroyed, the itching and the secondary symptoms, as a rule, rapidly disappear.

How is scabies treated?

Treatment is entirely external, and consists of a preliminary soap-and-hot-water bath, an application, twice daily for three days, of a remedy destructive to the parasites and ova, and finally another bath.

What remedial applications are commonly employed in scabies?

Sulphur, balsam of Peru, styrax, and β-naphthol, singly or severally combined. In children, or in those of sensitive skin, the following:—

℞. Sulphur. præcip., ... ℥iv
Balsam. Peruv., ... ℥iv
Adipis,
Petrolati, ... āā . . . . . ℥iss. M.

And in adults, or those of non-irritable skin:—

℞. Sulphur. præcip., ... ℥j
Balsam. Peruv., ... ℥ss.
β-Naphthol, ... ℥ij
Adipis,
Petrolati, . . . āā . . q. s. ad . . . ℥iv. M.

Styrax is a remedy of value and is commonly employed as an ointment in the strength of one part to two or three parts of lard.

Is one such course of treatment sufficient to bring about a cure?

Yes, in ordinary cases, if the applications have been carefully and thoroughly made; exceptionally, however, some parasites and ova escape destruction, and consequently itching will again begin to show itself at the end of a week or ten days, and a repetition of the treatment become necessary.

Does the secondary dermatitis which is always present in severe cases require treatment?

Only when it is unusually persistent or severe; in such cases the various soothing applications, lotions or ointments employed in acute eczema are to be prescribed.

Is a dermatitis due to too active and prolonged treatment ever mistaken for persistence of the scabies?

Yes.

Pediculosis.

(*Synonyms:* Phtheiriasis; Lousiness.)

Define pediculosis.

Pediculosis is a term applied to that condition of local or general cutaneous irritation due to the presence of the animal parasite, the pediculus, or louse.

Name the several varieties met with.

Three varieties are presented, named according to the parts involved, pediculosis capitis, pediculosis corporis, and pediculosis pubis; the parasite in each being a distinct species of pediculus.

Pediculosis Capitis.

Describe the symptoms of pediculosis capitis.

Pediculosis capitis (*pediculosis capillitii*), due to the presence of the pediculus capitis, occurs much more frequently in children than

in adults. It is characterized by marked itching, and the formation of various inflammatory lesions, such as papules, pustules and excoriations—resulting from the irritation produced by the parasites and from the scratching to which the intense pruritus gives rise. In fact, an eczematous eruption of the pustular type soon results, attended with more or less crust formation. In consequence of the cutaneous irritation the neighboring lymphatic glands may become inflamed and swollen, and in rare cases suppurate. The occipital region is the part which is usually most profusely infested. In those of delicate skin, especially in children, scattered papules,

FIG. 70.

Pediculus Capitis × 25. (*After Duhring.*)
Female. Dorsal surface.

vesico-papules, pustules and excoriations may often be seen upon the forehead and neck.

In addition to the pediculi, which, as a rule, may be readily found, their *ova*, or *nits*, are always to be seen upon the shaft of the hairs, quite firmly attached.

Describe the appearance of the ova.

They are dirty-white or grayish-looking, minute, pear-shaped bodies, visible to the naked eye, and fastened upon the shaft of the hairs with the small end toward the root.

FIG. 71.

Ova of the head-louse attached to a hair. Magnified. (*After Kaposi.*)

Is there any difficulty in the diagnosis of pediculosis capitis?

No. The diagnosis is readily made, as the pediculi are usually to be found without difficulty, and even when they exist in small numbers and are not readily discovered, *the presence of the ova* will indicate the nature of the affection.

Pustular eruptions upon the scalp, especially posteriorly, should always arouse a suspicion of pediculosis. The possibility of the pediculosis being secondary to eczema must not be forgotten.

What is the treatment of pediculosis capitis?

Treatment consists in the application of some remedy destructive to the pediculi and their ova. Crude petroleum is effective, one or two thorough applications over night being usually sufficient; in order to lessen its inflammability, and also to mask its somewhat disagreeable odor, it may be mixed with an equal part of olive oil and a small quantity of balsam of Peru added.

Tincture of cocculus indicus, pure or diluted, may also be applied with good results.

When the parts are markedly eczematous, an ointment of ammoniated mercury or β-naphthol, thirty to sixty grains to the ounce may be used.

How are the ova or their shells to be removed from the hair?

By the frequent use of acid or alkaline lotions, such as dilute acetic acid and vinegar, or solutions of sodium carbonate and borax.

Pediculosis Corporis.

Describe the symptoms of pediculosis corporis.

Pediculosis corporis is dependent upon the presence of the pediculus corporis (*pediculus vestimenti*), a larger variety than that infesting the scalp. It is characterized by more or less general itching,

together with various inflammatory lesions and excoriations. As the parasites are to be found chiefly in the folds and seams of the clothing, visiting the skin for the purpose of feeding, the various symptoms—the minute hemorrhagic puncta showing the points at which they have been sucking, and the consequent papules, pustules and excoriations—are, therefore, to be found most abundantly on those parts with which the clothing comes closely in contact, as, for

FIG. 72.

Pediculus Corporis × 25. (*After Duhring.*)
Female. Dorsal surface.

instance, around the neck, across the shoulders, around the waist, and down the outside of the thighs. It is uncommon in children.

State the diagnostic characters of pediculosis corporis.

The presence of the minute hemorrhagic puncta, the multiform character and peculiar distribution of the eruption. Careful search will almost invariably disclose one or more pediculi.

What is the treatment of pediculosis corporis?

The clothing and bed-coverings are to be thoroughly baked or

boiled, the pediculi and their ova being in this manner destroyed. As temporary measures, ointments of sulphur and staphisagria, and lotions of carbolic acid, may be advised.

Pediculosis Pubis.

Describe the symptoms of pediculosis pubis.

Pediculosis pubis is a condition due to the presence of the pediculus pubis, or crab-louse. It is characterized by more or less itching about the genitalia, together with papules, excoriations, and other inflammatory lesions. The amount of irritation varies;

FIG. 73.

Pediculus Pubis × 25. (*After Duhring.*)
Female. Dorsal surface.

it may be slight, or, on the other hand, severe. The parasite, which is the smallest of the three varieties, may be discovered upon close examination seated near the roots of the hairs, clutching the hair, with its head downward and buried in the follicle. The ova may be seen attached to the hair-shafts.

It infests adults chiefly, being in most instances probably contracted through sexual intercourse.

Is the pediculus pubis found upon any other part of the body?

Yes. Although its favorite habitat is the region of the pubes, it may, in exceptional instances, also infest the axillæ, the sternal region of the male, the beard, eyebrows, and even the eyelashes.

State the diagnostic characters of pediculosis pubis.

The region involved, itching, variable amount of irritation, and, above all, the presence of the pediculi and their ova.

Name the several applications usually made for the cure of pediculosis pubis.

A lotion of corrosive sublimate, one to four grains to the ounce; infusion of tobacco; a ten to twenty per cent. ointment of oleate of mercury; ammoniated mercury ointment, and a five to ten per cent. β-naphthol ointment.

Cysticercus Cellulosæ.

Describe the cutaneous disturbance produced by the cysticercus cellulosæ.

The presence of cysticerci in the skin and subcutaneous tissue gives rise to pea to hazelnut-sized, rounded, firm, movable tumors which, when developed, may remain unchanged for months. The parasites are disclosed by microscopic examination.

Most of the cases have been observed in Germany.

Filaria Medinensis.

(*Synonym:* Guinea-worm.)

State the character of the lesions produced by the filaria medinensis.

The young microscopic worm penetrates the skin or deeper tissue, where it grows gradually, finally reaching several inches or more in length and about a half-line in thickness; inflammation is excited and a tumor-like swelling makes its appearance, which, sooner or later, breaks, disclosing the worm. It may also present a cord-like appearance. It is rarely met with outside of tropical countries.

Treatment consists in gradual extraction. Asafœtida internally has been found to be curative, the parasite being destroyed and subsequently absorbed or discharged.

Ixodes.

(*Synonym:* Wood-tick.)

State the character of the cutaneous disturbance produced by the ixodes.

The tick sticks its proboscis into the skin and sucks blood until it is several times its natural size, and then falls off; an urticarial lesion results. If caught in the act the animal should not be forcibly extracted, as its proboscis may be thus broken off and remain in the skin, and give rise to pain and inflammation. It may be made to relinquish its hold by placing on it a drop of an essential oil.

Leptus.

(*Synonym:* Harvest-mite.)

State the characters of the lesion produced by the leptus.

This minute brick-red mite buries itself in the skin, especially

FIG. 74.

Leptus. Magnified. (*After Küchenmeister.*)

about the ankles and feet, giving rise to papules, vesicles and pustules.

Treatment consists of the use of a mild sulphur ointment or of a carbolic-acid lotion.

Œstrus.

(*Synonym:* Gad, or Bot-fly.)

Describe the cutaneous disturbance produced by the œstrus.

The ova are deposited in the skin, develop and give rise to the formation of furuncle-like tumors with central aperture, through which a sanious discharge exudes; or as the result of the burrowing of the larvæ, irregular serpiginous lines or wheals are produced.

It is chiefly met with in Central and South America.

Pulex Penetrans.

(*Synonyms:* Sand Flea, Jigger.)

Describe the cutaneous disturbance produced by the pulex penetrans.

This microscopic animal penetrates the skin, especially about the toes, producing an inflammatory swelling, vesicle or pustule, or even ulceration. It is met with in warm and tropical countries.

Treatment consists in extraction. Essential oils are used as a preventive.

Cimex Lectularius.

(*Synonym:* Bed-bug.)

Describe the characters of a bed-bug bite.

An inflammatory papule or wheal-like lesion results, somewhat hemorrhagic; the purpuric or hemorrhagic point or spot remains after the swelling subsides, but finally, in the course of several days or a few weeks, disappears.

Treatment consists in the application of alkaline or acid lotions.

Culex.

(*Synonym:* Gnat; Mosquito.)

Describe the cutaneous disturbance produced by the culex.

It consists of an erythematous spot or a wheal-like lesion.

Alkaline or acid lotions usually give relief.

Pulex Irritans.

(*Synonym:* Common Flea.)

Describe the cutaneous disturbance produced by the pulex irritans.

It consists of an erythematous spot with a minute central hemorrhagic point. In irritable skin, a wheal-like lesion may result.

Treatment consists of applications of camphor or ammonia water.

APPENDIX.

ATLAS REFERENCES.

(Only plates giving clear and satisfactory representations are referred to.)

Acne.

G. H. Fox's Atlas, 2d Ser., Part 7; Morrow's Atlas, plate LIX.

Acne Rosacea.

Duhring's Atlas, plate E; G. H. Fox's Atlas, 2d Ser., Part 8 (3 figures, showing the several grades); Morrow's Atlas, plate LIX.

Alopecia Areata.

Duhring's Atlas, plate N; G. H. Fox's Atlas, 2d Ser., Part 9 (3 plates); Taylor's Atlas, plate LVII.

Atrophia Cutis.

Taylor's Atlas, plate LVIII (*angioma pigmentosum et atrophicum*).

Comedo.

G. H. Fox's Atlas, 2d Ser., Part 7; Morrow's Atlas, plate XXXVI, Fig. 2.

Dermatitis.

G. H. Fox's Atlas, 2d Ser., Part 2 (*rhus poisoning* and *dermatitis calorica*); Morrow's Atlas, plate L, Fig. 2, and Taylor's Atlas, plate XLIX, Fig. 2 (*superficially ulcerative dermatitis*, from the *bromides*); Morrow's Atlas, plate L, Fig. 1, and Taylor's Atlas, plate XLIX, Fig. 1 (*bullous eruption* from the *iodides*).

Dermatitis Exfoliativa.

G. H. Fox's Atlas, 2d Ser., Part 4; Morrow's Atlas, plate XLIX, Fig. 3.

Dermatitis Herpetiformis.

Morrow's Atlas, plate LIII (*vesicular type*).

Ecthyma.

Duhring's Atlas, plate JJ ; Taylor's Atlas, plate XLIII.

Eczema.

Duhring's Atlas, plates—A (*erythematous*), X (*papular*), T (*vesicular*), Y (*pustular*), O, GG and HH (*rubrum*), and I (*squamous*) ; G. H. Fox's Atlas, 2d Ser., Parts 2 (*erythematous*), and 3 (*rubrum* and *squamous*) ; Taylor's Atlas, plate XXVII (*pustular* and *rubrum*) ; Morrow's Atlas, plates XLV, Fig. 1 (*squamous*), and XLVII (*seborrhoicum*).

Elephantiasis.

Morrow's Atlas, plate LXI.

Epithelioma.

G. H. Fox's Atlas, 2d Ser., Part 11.

Erysipelas.

Morrow's Atlas, plate XL, Fig. 2.

Erythema Multiforme.

Duhring's Atlas, plate CC (*papular*) ; G. H. Fox's Atlas, 2d Ser., Part 1 (*bullous*) ; Taylor's Atlas, plate XXXIV (*annular*).

Erythema Nodosum.

Duhring's Atlas, plate V ; Taylor's Atlas, plate XXV.

Fibroma.

G. H. Fox's Atlas, 2d Ser., Part 9 ; Morrow's Atlas, plate LXIII.

Herpes Iris.

Morrow's Atlas, plate XLII, Fig. 1.

Herpes Simplex.

G. H. Fox's Atlas, 2d Ser., Part 6 (*face*) ; Morrow's Atlas, plate LI, Figs. 1 and 2 (*face*), 3 and 4 (*genitalia*) ; Taylor's Atlas, plate VI, Figs. 1 and 2 (*genitalia*).

Herpes Zoster.

G. H. Fox's Atlas, 2d Ser., Part 6 (*supra-orbital*) ; Duhring's Atlas, plate R, Taylor's Atlas, plate XLV, and Morrow's Atlas, plate LII (*intercostal*).

Ichthyosis.

Duhring's Atlas, plate F ; G. H. Fox's Atlas, 2d Ser., Part 8

Impetigo Contagiosa.

Duhring's Atlas, plate Z.

Impetigo Herpetiformis.

Taylor's Atlas, plate XXXVIII.

Keloid.

G. H. Fox's Atlas, 2d Ser., Part 9 : Morrow's Atlas, plate LXIII.

Lepra.

G. H. Fox's Atlas, 2d Ser. Part 10, and Taylor's Atlas, plate LII (*macular* and *tubercular*).

Lichen Ruber.

Taylor's Atlas, plates LIII (*planus*) and LIV (*acuminatus*) ; Morrow's Atlas, plate LVII (*planus*).

Lupus Erythematosus.

Duhring's Atlas, plate C ; Taylor's Atlas, plate XLIV.

Lupus Vulgaris.

Duhring's Atlas, plate BB, and G. H. Fox's Atlas, 2d Ser., Part 10 (*non-ulcerating*) ; Taylor's Atlas, plate LV (*ulcerating*).

Milium.

Morrow's Atlas, plate XXXVI, Fig. 3.

Molluscum Epitheliale.

Taylor's Atlas, plate LI ; Morrow's Atlas, plate LX, Figs. 1 and 2.

Pediculosis.

G. H. Fox's Atlas, 2d Ser., Part 12 (*capillitii* and *corporis*) ; Taylor's Atlas, plate XXXII (*corporis*).

Pemphigus.

Duhring's Atlas, plate II, G. H. Fox's Atlas, 2d Ser., Part 7, and Taylor's Atlas, plate XL (*vulgaris*) ; Morrow's Atlas, plate LIV (*vulgaris* and *foliaceus*).

Pityriasis Rubra.

Taylor's Atlas, plate XXXVII ; Morrow's Atlas, plate XLIX, Figs. 1 and 2.

Pompholyx.

Taylor's Atlas, plate XLVII.

Psoriasis.

Duhring's Atlas, plates B and DD; Taylor's Atlas, plate XXIV; G. H. Fox's Atlas, 2d Ser., Part 5.

Purpura.

Duhring's Atlas, plate K; Morrow's Atlas, plate LV, Fig. 1.

Rhinoscleroma.

Morrow's Atlas, plate LXIV.

Sarcoma.

G. H. Fox's Atlas, 2d Ser., Part 11.

Scabies.

Duhring's Atlas, plate Q; Taylor's Atlas, plate XLVI.

Seborrhœa.

Duhring's Atlas, plate W, and G. H. Fox's Atlas, 2d Ser., Part 1 (*face*); Morrow's Atlas, plate XXXVI, Fig 1 (*scalp*).

Sudamen.

Taylor's Atlas, plate XLVII; Morrow's Atlas, plate XXXVI, Fig. 4.

Sycosis.

Duhring's Atlas, plate H.

Syphilis Cutanea.

Duhring's Atlas, plate J, Taylor's Atlas, plate X, Figs. 1 and 2, and Morrow's Atlas, plate XII (*macular*); Duhring's Atlas, plate L, and Taylor's Atlas, plate XI, Figs. 1 and 2, and Morrow's Atlas, plate XIII, (*small-papular*); Duhring's Atlas, plate AA, and Taylor's Atlas, plate XII (*large-papular*); Morrow's Atlas, plate XVI (*papulo-squamous*); Morrow's Atlas, plate XVIII (*palmar*); G. H. Fox's Atlas, 2d Ser., Part 4 (*plantar*); Morrow's Atlas, plate XV (*papulo-pustular*); Duhring's Atlas, plate L (*small acuminated-pustular*); Duhring's Atlas, plate U, Taylor's Atlas, plate XIV, Figs. 1 and 2, and Morrow's Atlas, plate XXIII (*large acuminated-pustular*); Taylor's Atlas, plate XV, Figs. 1 and 2 (*small flat-pustular*); Duhring's Atlas, plate D, Taylor's Atlas, plates XVI and XVII, and Morrow's Atlas, plate XXV (*large flat-pustular, rupia*); Duhring's Atlas, plate EE, and Taylor's Atlas, plate XIX

(*non-ulcerating tubercular*); Taylor's Atlas, plate XX, and Morrow's Atlas, plate XXVII (*ulcerating tubercular*); Morrow's Atlas, plates XXVIII, XXIX and XXXIII, Fig. 2 (*gummatous*); Morrow's Atlas, plates XXXIV (*bullous*—hereditary) and XXXV (*polymorphous*—hereditary); Taylor's Atlas, plate XXII (*macular* and *papular*—hereditary).

Tinea Favosa.

Duhring's Atlas, plate O (*scalp*); G. H. Fox's Atlas, 2d Ser., Part 11 (*scalp* and *general surface*).

Tinea Trichophytina.

Duhring's Atlas, plates FF (*scalp* and *general surface*) and S (*barbæ*—nodular); G. H. Fox's Atlas, 2d Ser., Part 11 (*scalp* and *general surface*); Taylor's Atlas, plates XXXVI (*kerion*), XLI (*cruris*), XLII (*barbæ*—superficial form).

Tinea Versicolor.

Duhring's Atlas, plate G; G. H. Fox's Atlas, 2d Ser., Part 12; Taylor's Atlas, plate XXXV.

Urticaria.

Taylor's Atlas, plate XXXIX; Morrow's Atlas, plate XLIII, Fig. 1.

Urticaria Pigmentosa.

G. H. Fox's Atlas, 2d Ser., Part 2; Morrow's Atlas, plate XLIII, Fig 2.

Verruca.

Taylor's Atlas, plate II, Fig. 8 (*acuminata*); Morrow's Atlas, plates XIX, Fig. 1 (*acuminata*), and LX (*senilis*).

Vitiligo.

Duhring's Atlas, plate M.

Xanthoma.

Morrow's Atlas, plate LXIV (*planum*).

RELATIVE FREQUENCY OF THE VARIOUS DISEASES OF SKIN AS SHOWN BY THE STATISTICS (123,746 CASES) OF THE AMERICAN DERMATOLOGICAL ASSOCIATION FOR TEN YEARS, 1878–87.

Classification of Diseases.	No. Cases.	% Cases.
Class I. Disorders of the Glands.		
1. Of the Sweat Glands.		
Hyperidrosis	328	.265
Sudamen	268	.216
Anidrosis	11	.009
Bromidrosis	112	.090
Chromidrosis	7	.005
Uridrosis	.....	.....
2. Of the Sebaceous Glands	238	.193
Seborrhœa:	1812	1.47
a. oleosa	367	.296
b. sicca	395	.319
Comedo	1225	.989
Cyst:	6	.004
a. Milium	225	.183
b. Steatoma	151	.122
Asteatosis	8	.006
Class II. Inflammations.		
Exanthemata	1770	1.43
Erythema simplex	1064	.859
Erythema multiforme:	915	.780
a. papulosum	325	.262
b. bullosum	37	.029
c. nodosum	82	.066
Urticaria	2994	2.47
pigmentosa	1	.0008
* Dermatitis:	1720	1.39
a. traumatica	468	.378
b. venenata	616	.498
c. calorica	224	.187
d. medicamentosa	108	.087
e. gangrænosa	8	.006
Erysipelas	1026	.829
Furunculus	2129	1 72
Anthrax	252	.203
Phlegmona diffusa	265	.215
Pustula maligna	197	.159
Herpes simplex	2057	1.66
Herpes zoster	1428	1.15
Dermatitis herpetiformis	41	.033
Psoriasis	4131	3.34
Pityriasis maculata et circinata	71	.057
Dermatitis exfoliativa	16	.012
Pityriasis rubra	44	.032
Lichen:	144	.116
a. planus	154	.124
b. ruber	27	.021
Eczema:	37661	30.43
a. erythematosum	.....	.....
b. papulosum	.....	.....
c. vesiculosum	.....	.....
d. madidans	.....	.....
e. pustulosum	.....	.....
f. rubrum	.....	.....
g. squamosum	.....	.....
Prurigo	34	.027
Acne	9077	7.34
Acne rosacea	398	.321
Sycosis	227	.185
Impetigo	1769	1.43
Impetigo contagiosa	600	.485
Impetigo herpetiformis	10	.009
Ecthyma	726	.587
Pemphigus	183	.148
Ulcers	3021	2.44
Class III. Hemorrhages.		
Purpura:	341	.275
a. simplex	181	.145
b. hæmorrhagica	49	.039
Class IV. Hypertrophies.		
1. Of Pigment.		
Lentigo	127	.103
Chloasma	560	.452
2. Of Epidermal and Papillary Layers.		
Keratosis:	94	.076
a. pilaris	103	.083
b. senilis	68	.055
Molluscum epitheliale	172	.139
Callositas	110	.090
Clavus	84	.068
Cornu cutaneum	42	.034
Verruca	1252	1.09
Verruca necrogenica	2	.001
Nævus pigmentosus	88	.064
Xerosis	100	.080
Ichthyosis	309	.249
Onychauxis	70	.056
Hypertrichosis	515	.416

* Indicating affections of this class not properly included under other titles.

STATISTICS—(*Continued.*)

Classification of Diseases.	No. Cases.	% Cases.
3. Of Connective Tissue.		
Sclerema neonatorum	.....	.....
Scleroderma	38	0.030
Morphœa	39	0.031
Elephantiasis	57	0.046
Rosacea:	785	0.634
a. erythematosa	381	0.308
b. hypertrophica	58	0.047
Frambœsia	22	0.018
Class V. Atrophies.		
1. Of Pigment.		
Leucoderma	77	0.062
Albinismus	9	0.008
Vitiligo	191	0.155
Canities	43	0.035
2. Of Hair.		
Alopecia	926	0.749
Alopecia furfuracea	830	0.670
Alopecia areata	794	0.641
Atrophia pilorum propria	23	0.019
Trichorexis nodosa	3	0.002
3. Of Nail	26	0.021
Atrophia unguis	19	0.015
4. Of Cutis	6	0.005
Atrophia senilis	15	0.013
Atrophia maculosa et striata	23	0.019
Class VI. New Growths.		
1. Of Connective Tissue.	1	0.0008
Keloid	152	0.124
Cicatrix	89	0.065
Fibroma	93	0.075
Neuroma	11	0.009
Xanthoma	69	0.056
2. Of Muscular Tissue.		
Myoma	1	0.0008
3. Of Vessels.		
Angioma	462	0.373
Angioma pigmentosum et atrophicum	13	0.010
Angioma cavernosum	22	0.018
Lymphangioma	16	.012
4. Mycosis fongoide	1	.0008
Rhinoscleroma	3	.002
Lupus erythematosus	477	.385
Lupus vulgaris	536	.433
Scrofuloderma	663	.536
Syphiloderma:	13888	11.22
a. erythematosum	.....	.....
b. papulosum	.....	.....
c. pustulosum	.....	.....
d. tuberculosum	.....	.....
e. gummatosum	.....	.....
Lepra:	24	.020
a. tuberosa	7	.005
b. maculosa	4	.003
c. anæsthetica	6	.004
Carcinoma	1068	.863
Sarcoma	55	.044
Class VII. Neuroses.		
Hyperæsthesia:	4	.003
a. Pruritus	2716	2.12
b. Dermatalgia	11	.009
Anæsthesia	22	.018
Class VIII. Parasitic Affections.		
1. Vegetable.		
Tinea favosa	354	.286
Tinea trichophytina:	2289	1.85
a. circinata	705	.569
b. tonsurans	675	.545
c. sycosis	365	.295
Tinea versicolor	1263	1.02
2. Animal.		
Scabies	3192	2.58
Pediculosis capillitii	2579	2.09
Pediculosis corporis	1704	1.38
Pediculosis pubis	436	.352
Total	123746	

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